



# ST. LOUIS DISTRICT MOBILITY

MARCH/APRIL 2017

## GUIDEPost

- FREEWAY MOBILITY CONSISTENT IN AM PEAKS WITH SLIGHT DECREASE IN MOBILITY FOR THE PM PEAK FROM MARCH TO APRIL.
- AVERAGE INCIDENT LANE CLEARANCE CONTINUED TO IMPROVE DESPITE A BIG JUMP IN THE NUMBER OF INCIDENTS
- AVERAGE 24 HOUR VOLUMES ARE LISTED FOR TRENDING PURPOSES ONLY. ACTUAL VOLUMES VARY BECAUSE OF THE LOSS OF PROBE DATA ALONG SEVERAL ROUTES AND THE ADDITION OF DATA FROM NEW ROUTES
- TERRIFIC RAINFALL HIT THE DISTRICT THE LAST WEEKEND IN APRIL CAUSING HISTORIC FLOODING AND CLOSURE OF 100 PLUS ROADS

## 364 AT HARVESTER



TRAFFIC ENGINEERS ADJUST SIGNALS TO MITIGATE THE IMPACT FOR AN INCIDENT LIKE THE ONE PICTURED ABOVE ON MARCH 15, 2017. ADJUSTING THE SIGNAL TIMING ALLOWED TRAFFIC TO USE THE OUTER ROAD AS A DETOUR.

## MOBILITY SNAPSHOT

### ZONING IN

#### TMS WORK ZONES

- ◆ MARCH 2017: 229
- ◆ APRIL 2017: 283

#### WORK ZONE BREAKDOWN:

- ◆ MAJOR: 3 – 0.88%
- ◆ MODERATE: 6 – 1.76%
- ◆ MINOR: 332 – 97.36%

#### WORK ZONE CRASHES: 9



#### FREEWAY MOBILITY

MARCH TO APRIL COMPARISON:  
AM IMPROVEMENT / PM DECREASED MOBILITY



#### MAJOR INCIDENTS

MAR 2017: 10 → APR 2017: 4



#### AVERAGE INCIDENT DURATION MAR → APR

LANE CLEARANCE: 24:55 → 23:53

INCIDENT CLEARANCE: 28:59 → 28:05  
(MIN: SEC)



#### MAJOR IMPACT WORK ZONES

MAR → 1 APR → 2

#### Moderate Impact Work Zones

MAR → 2 APR → 4



**GATEWAY GUIDE**  
TRANSPORTATION MANAGEMENT CENTER

**AECOM**



# WORK ZONES

## TMC Observed Work Zones March - April 2017

March		Apr	
Level of Travel Time Impact	Number of Work Zones	Level of Travel Time Impact	Number of Work Zones
Major Impact	1	Major Impact	2
Moderate Impact	2	Moderate Impact	4
Minor Impact	160	Minor Impact	172
Total	163	Total	178

\*Impact Levels described in Data Key

### SL Mobility Rating:

- ◆ Mar 2017: 94%
- ◆ Apr 2017: 98%
- ◆ Goal: 91%

### SL Visibility levels:

- ◆ Mar 2017: 99%
- ◆ Apr 2017: 96%
- ◆ Goal: 91%

## ***Additional Travel Time Impacts through Work Zones***

### **Major Impact (15 Minutes or Above)**

### **Moderate Impact (10-14 Minutes)**

#### **3/9 (Thursday) Eastbound I-44 from Edgar to Shrewsbury — 3 right lanes (1 Major 2 Moderates)**

- Closed three lanes with one lane of traffic open for preparation for shifting eastbound traffic onto westbound lanes
- All mitigation efforts were in use
- RITIS data recorded additional travel times of 16 minutes in both peaks

#### **4/15 (Saturday) Southbound I-55 at Route Z 2 right lanes (1 Major 2 Moderates)**

- Traffic reduced to one lane all weekend (Easter Weekend) for bridge work
- All mitigation efforts were in use
- RITIS data recorded additional travel times of 33 minutes

#### **4/16 (Sunday) Southbound I-55 at Route Z 2 right lanes (1 Major 2 Moderates)**

- Traffic reduced to one lane all weekend for bridge work. (Easter Weekend)
- All mitigation efforts were in use
- RITIS data recorded additional travel times of 31 minutes

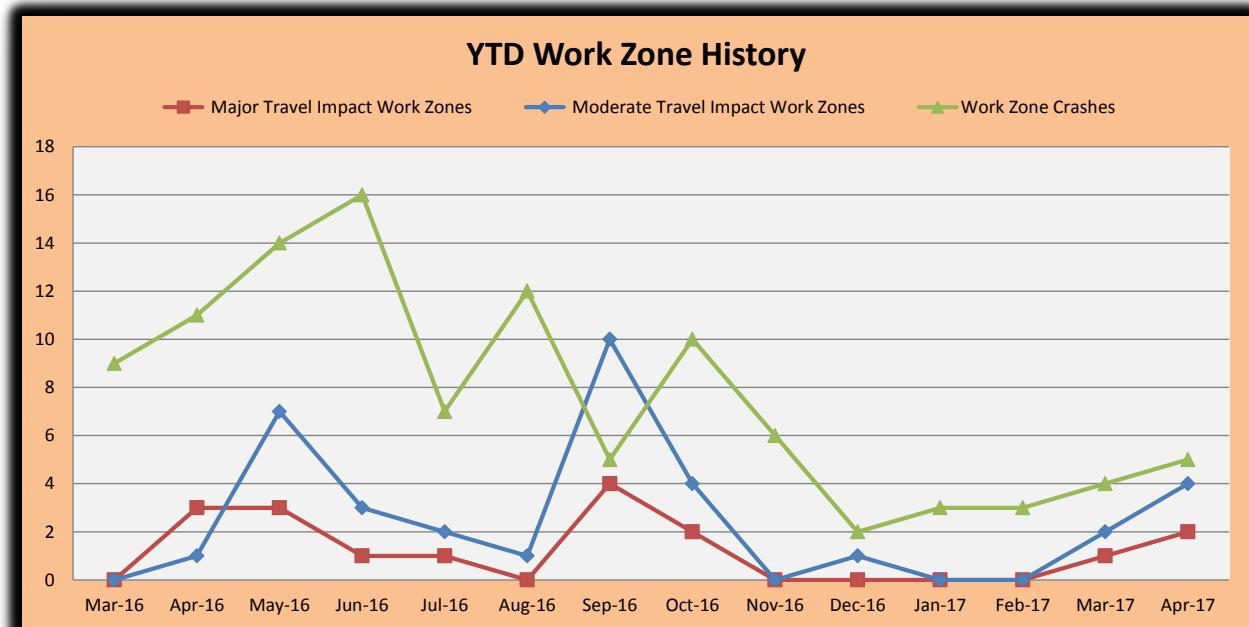
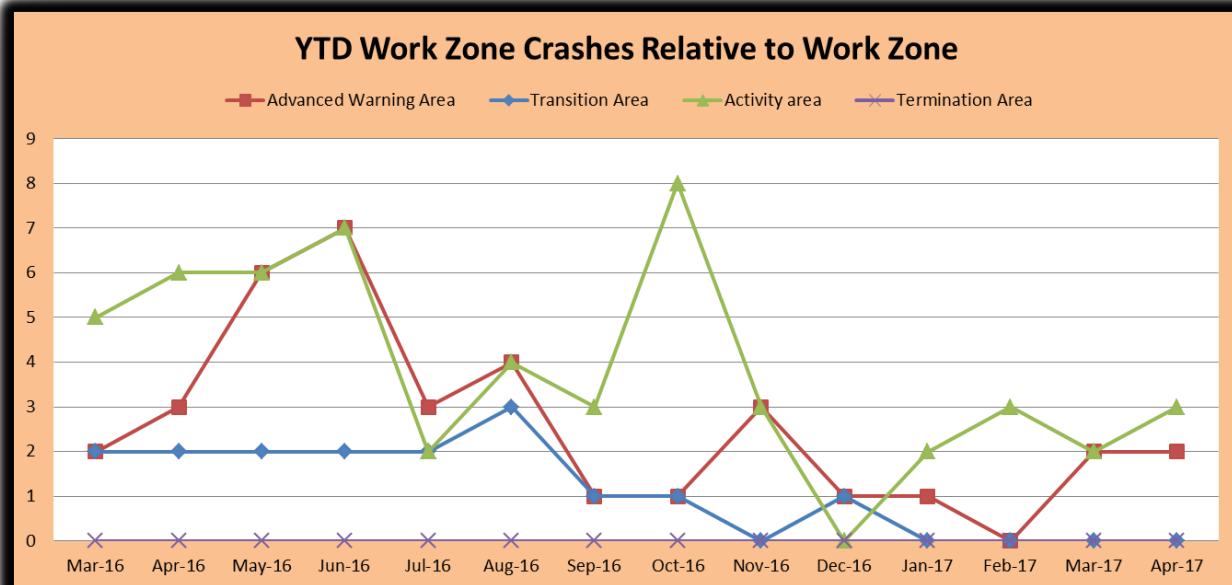
### **Work Zone Related Crashes with Mobility Impact**

\*\*\*None\*\*\*

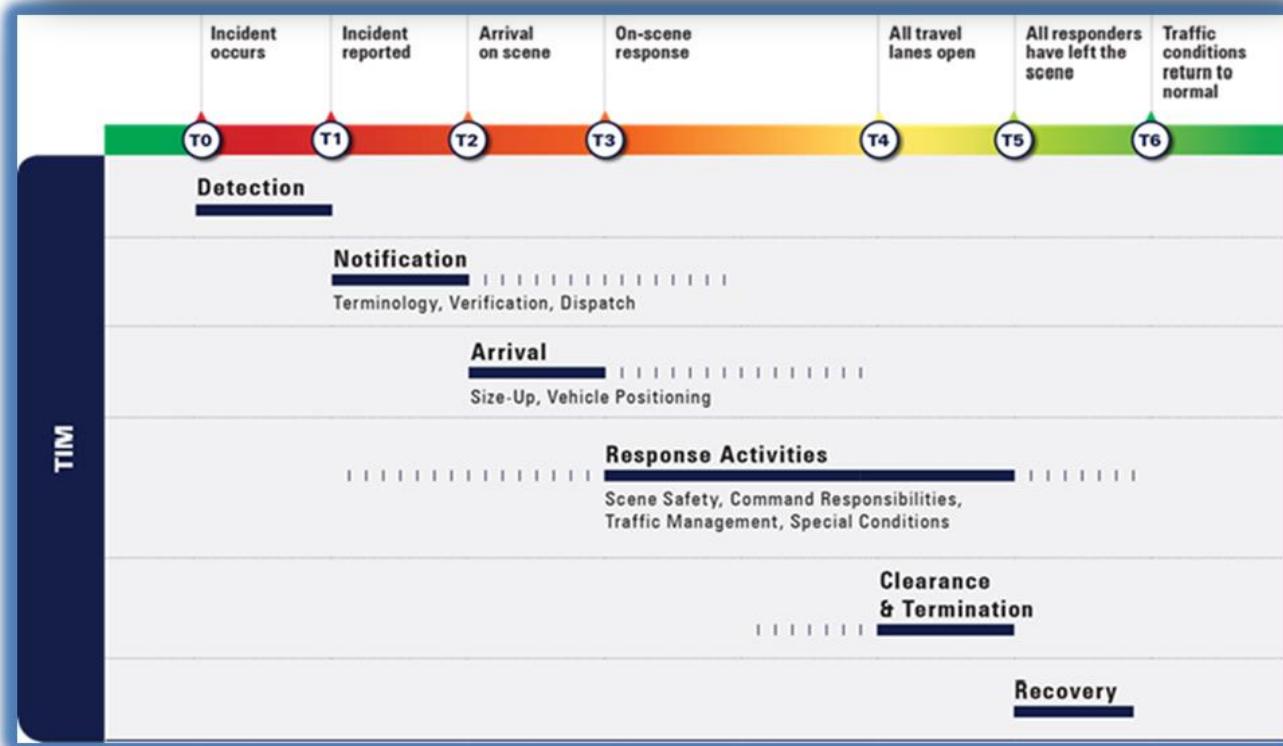




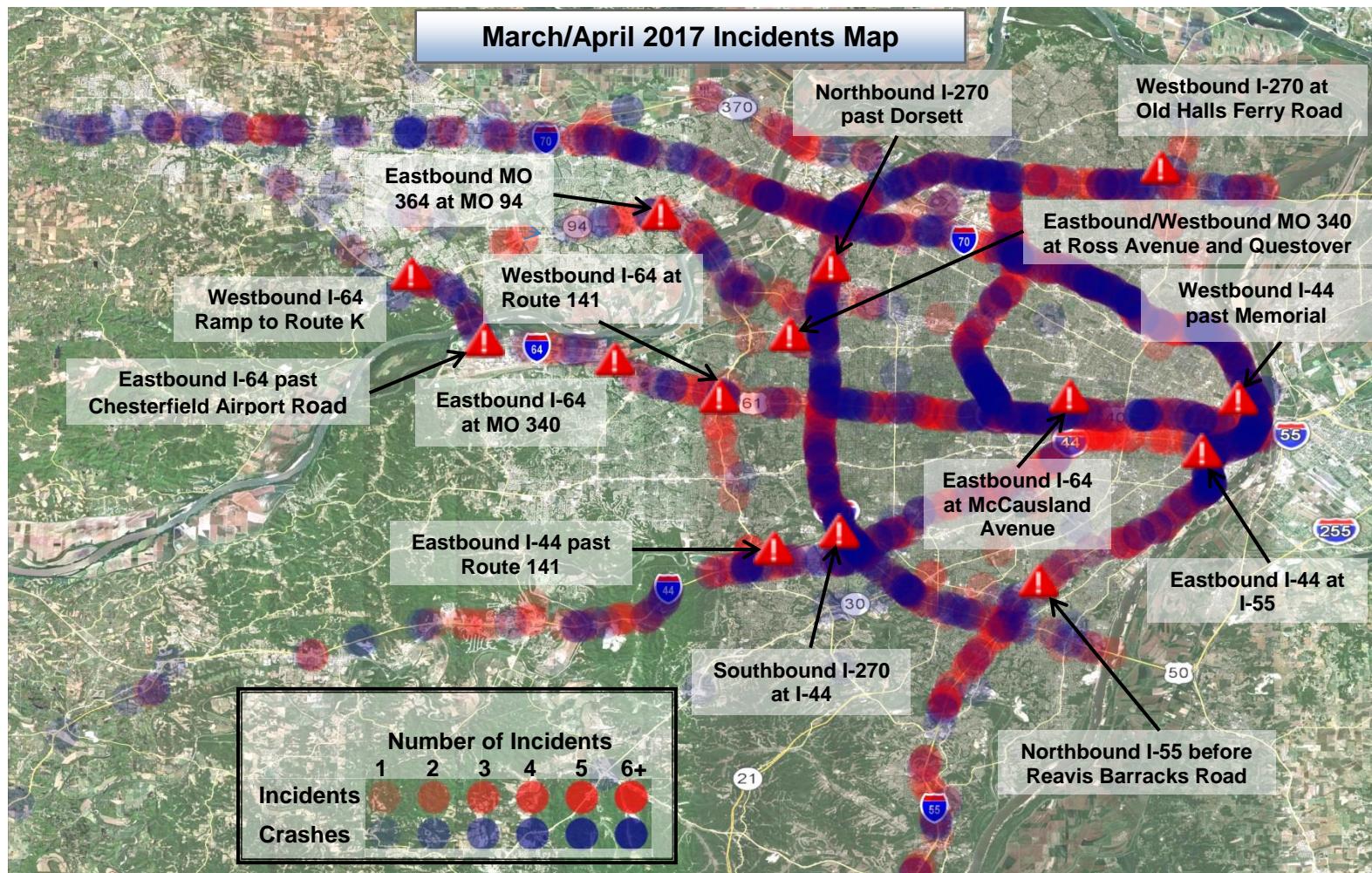
# WORK ZONES



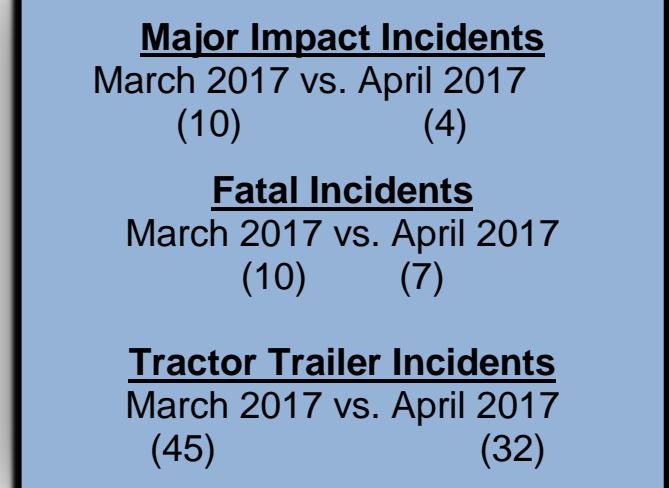
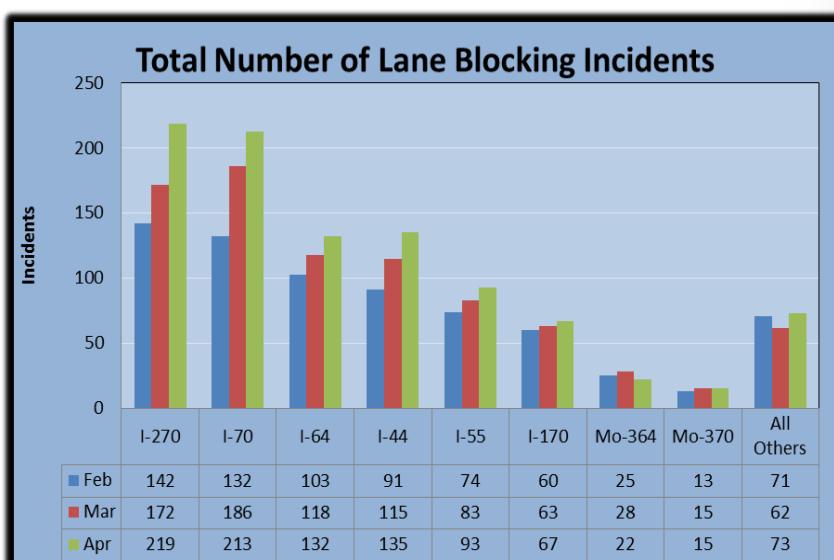
# INCIDENT MANAGEMENT



# INCIDENT MANAGEMENT



**Total Number of Incidents: February: 711 / March: 842 / April: 969**



# INCIDENT MANAGEMENT

## Lane Blocking Incidents by Freeway March and April 2017

Interstate	Month	Number of Incidents	Average Time to Clear Incident from Lanes = T4 - T1	Average Time for Backup to Clear = T6 - T4	Freeway Miles	Incidents per Mile
I-44	Mar	115	28:37	01:53	33	3.48
I-44	Apr	135	22:09	01:25	33	4.09
I-55	Mar	83	27:33	01:49	23	3.61
I-55	Apr	93	20:23	02:20	23	4.04
I-64	Mar	118	25:40	02:23	40	2.95
I-64	Apr	132	19:56	01:22	40	3.30
I-70	Mar	186	20:44	03:05	38	4.89
I-70	Apr	213	22:31	04:42	38	5.61
I-170	Mar	63	21:44	01:36	11	5.73
I-170	Apr	67	16:20	01:07	11	6.09
I-270	Mar	172	23:08	04:02	36	4.78
I-270	Apr	219	23:56	03:43	36	6.08
MO-364	Mar	28	22:51	00:02	11	2.55
MO-364	Apr	22	17:16	01:30	11	2.00
MO-370	Mar	15	22:44	00:00	13	1.15
MO-370	Apr	15	29:20	00:00	13	1.15
Total	Mar/Apr	1676	22:48	01:56	410	4.09

## 2015 Number of Incidents and Time to Clear Lanes

\*Note changes in Incident reporting data began in July 2015

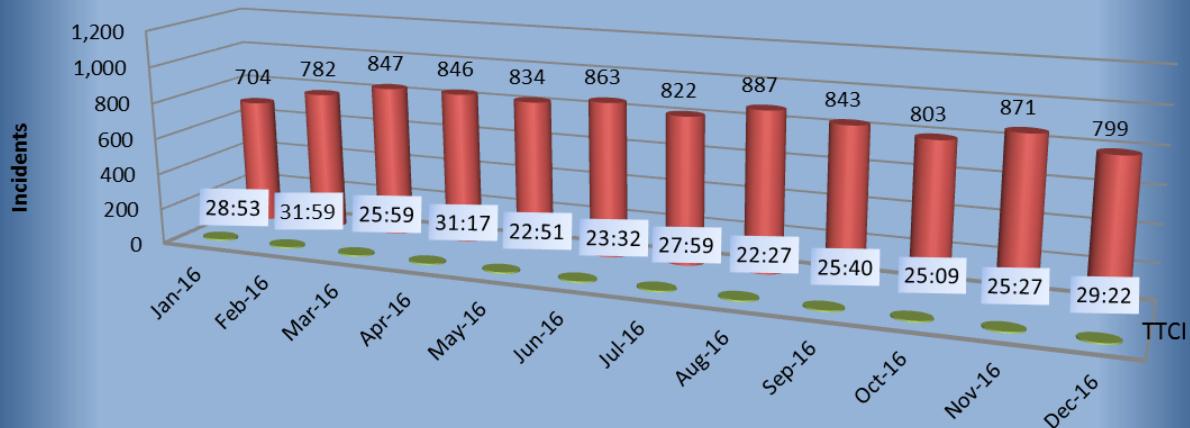


	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15
TTCI	26:49	26:59	27:23	23:10	30:45	31:34	26:32	28:10	26:15	30:16	27:36	30:57
Incidents	576	662	636	647	767	755	889	997	906	1002	1009	889

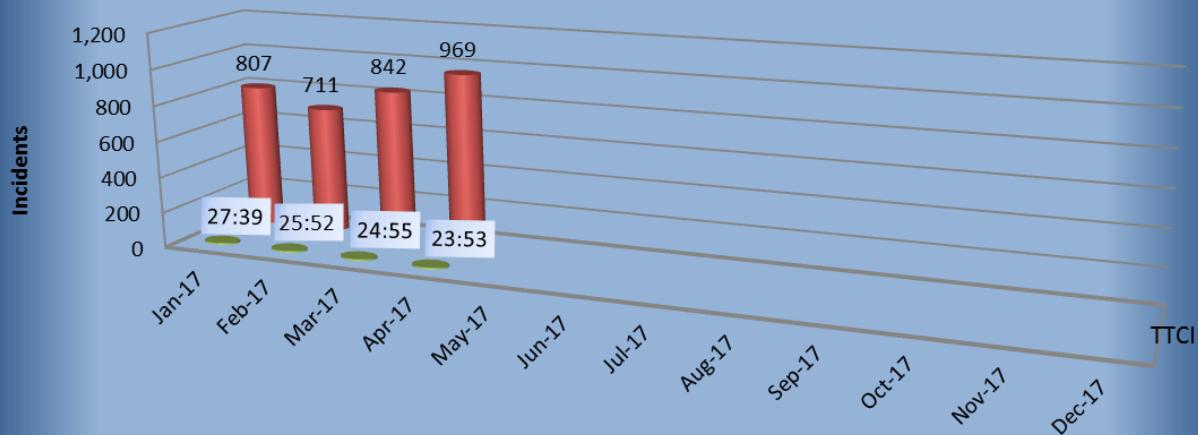


# INCIDENT MANAGEMENT

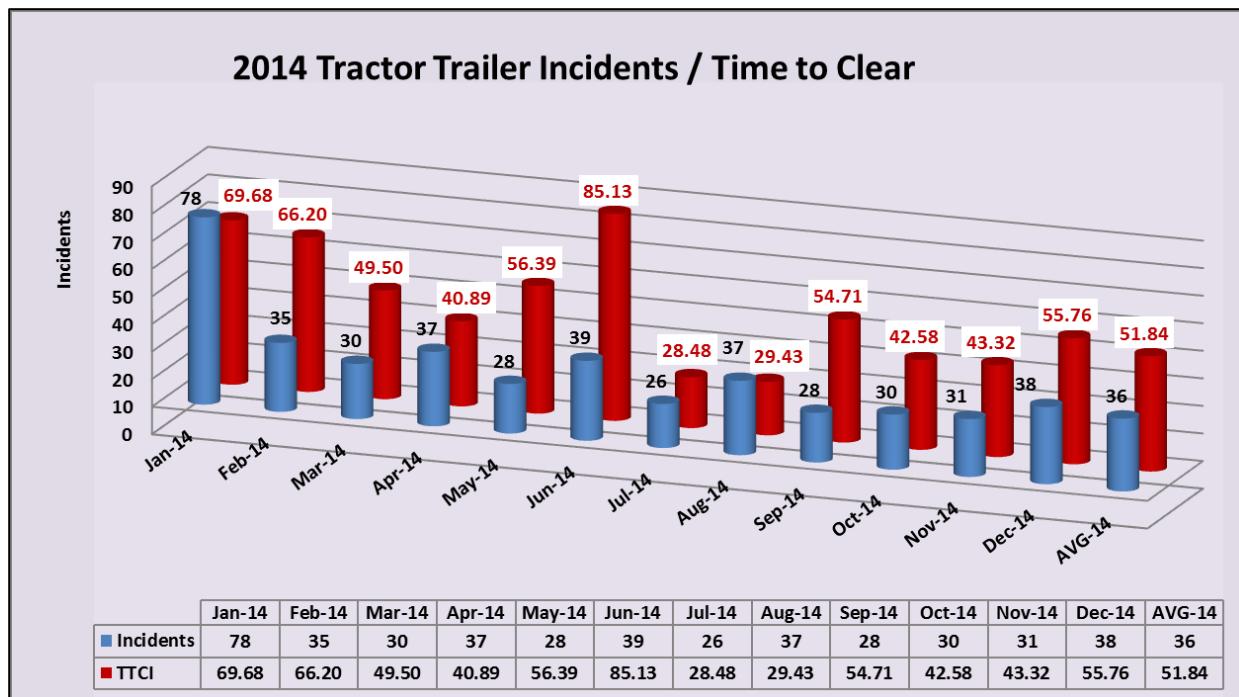
## 2016 Number of Incidents and Time to Clear Lanes



## 2017 Number of Incidents and Time to Clear Lanes



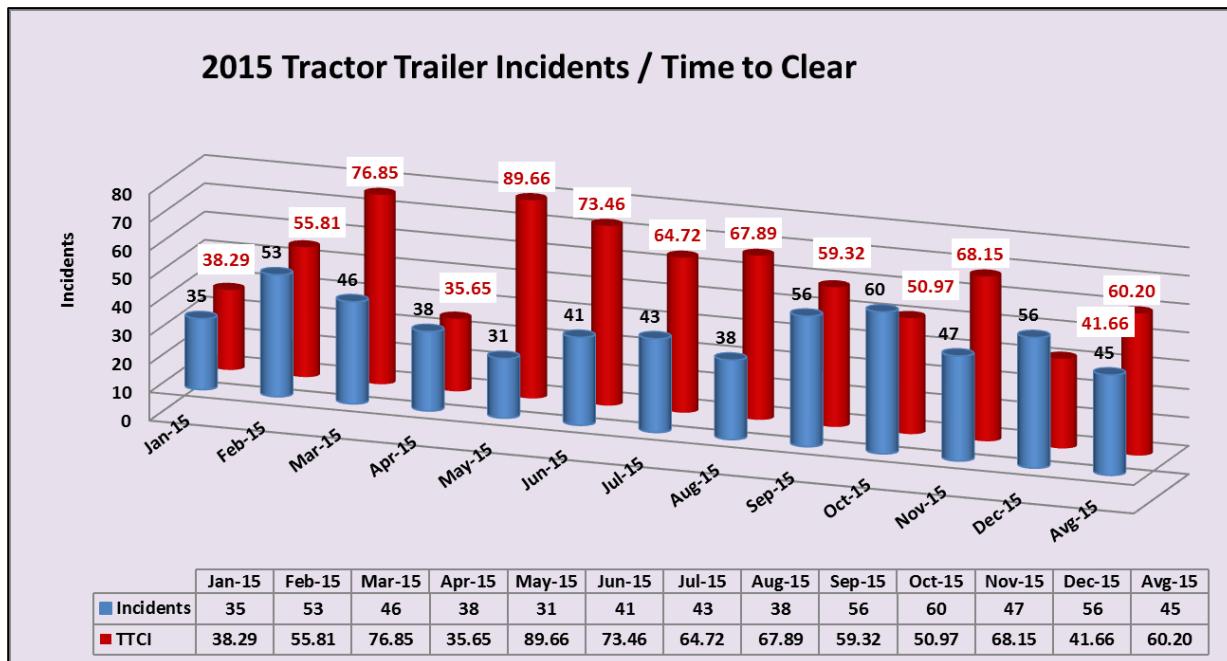
# INCIDENT MANAGEMENT



2014	I-44	I-55	I-64	I-70	I-170	I-255 / I-270	Route 364	Route 370	* Other	Total	TTCI
Jan	20	7	9	24	3	11	3	1	0	78	69.68
Feb	5	3	6	13	1	6	0	1	0	35	66.20
Mar	8	7	5	5	0	4	0	1	0	30	49.50
Apr	5	3	12	7	0	10	0	0	0	37	40.89
May	5	8	4	4	1	6	0	0	0	28	56.39
Jun	11	8	5	8	0	7	0	0	0	39	85.13
Jul	4	2	8	4	0	7	0	1	0	26	28.48
Aug	5	4	7	8	2	10	0	1	0	37	29.43
Sep	3	3	4	10	0	7	0	1	0	28	54.71
Oct	5	6	4	4	1	7	0	3	0	30	42.58
Nov	2	4	5	9	1	7	0	3	0	31	43.32
Dec	7	7	2	12	1	8	0	1	0	38	55.76
YR Totals	80	62	71	108	10	90	3	13	0	437	51.84

\*Other Routes are MoDOT maintained non-freeway routes and were not included on system until July 2015

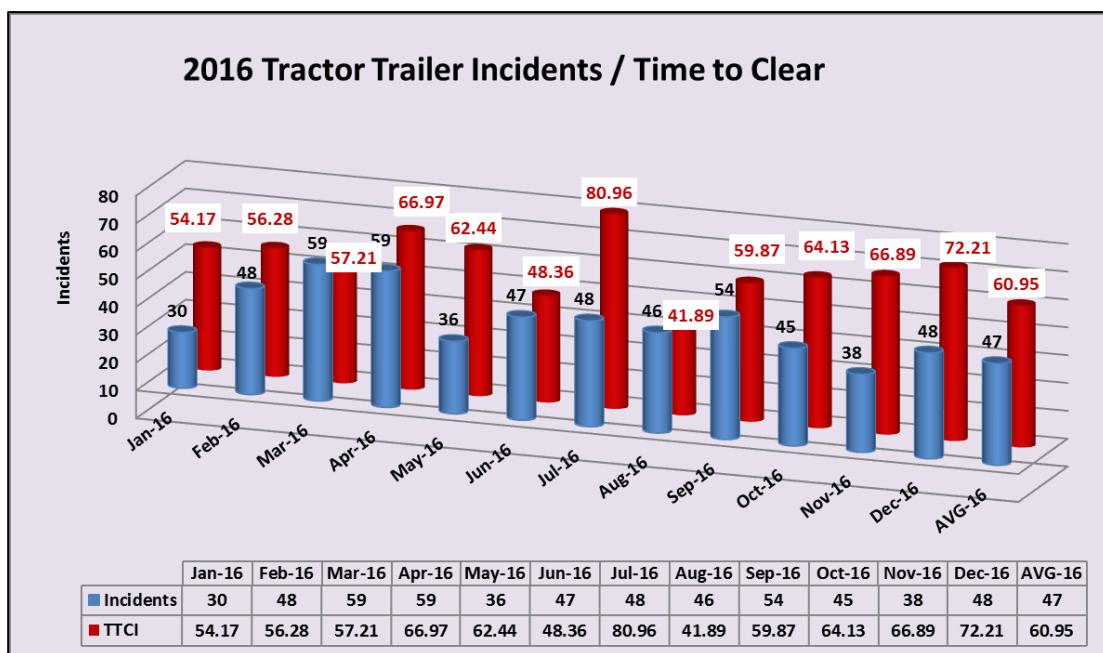
# INCIDENT MANAGEMENT



2015	I-44	I-55	I-64	I-70	I-170	I-255 / I-270	Route 364	Route 370	* Other	Total	
Jan	7	4	4	10	0	9	0	1	0	35	38.29
Feb	20	2	6	9	1	14	1	0	0	53	55.81
Mar	9	4	11	14	0	7	0	1	0	46	76.85
Apr	7	3	7	17	1	2	1	0	0	38	35.65
May	5	2	9	10	0	3	1	1	0	31	89.66
Jun	9	3	6	10	0	12	0	1	0	41	73.46
Jul	6	6	8	8	1	11	0	0	3	43	64.72
Aug	10	2	3	11	0	9	0	0	3	38	67.89
Sep	11	9	5	17	2	9	0	1	2	56	59.32
Oct	12	12	8	17	1	8	0	0	2	60	50.97
Nov	8	4	7	14	0	11	0	0	3	47	68.15
Dec	5	9	8	19	2	8	0	0	5	56	41.66
YR Totals	109	60	82	156	8	103	3	5	18	544	60.20

\*Other Routes are MoDOT maintained non-freeway routes and were not included on system until July 2015

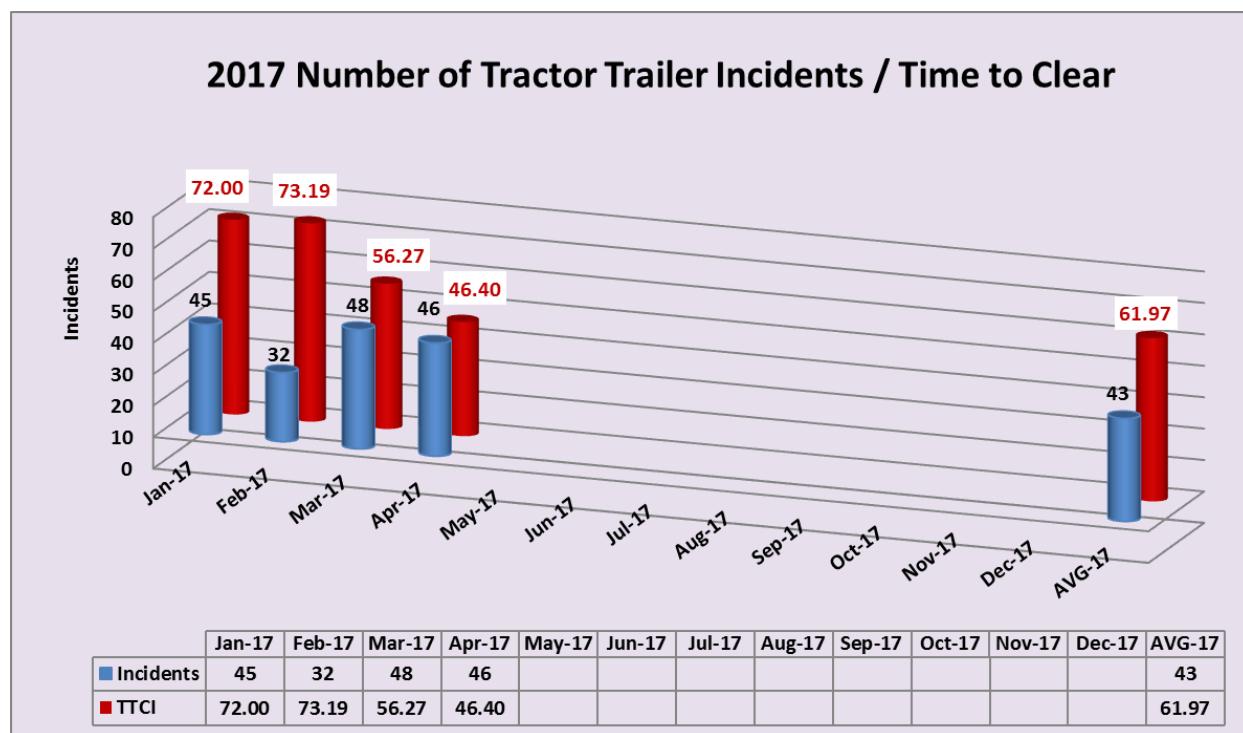
# INCIDENT MANAGEMENT



2016	I-44	I-55	I-64	I-70	I-170	I-255 / I-270	Route 364	Route 370	* Other	Total
Jan	7	3	4	5	1	10	0	0	0	30
Feb	10	3	10	15	2	5	0	1	2	48
Mar	14	6	6	22	2	8	0	0	1	59
Apr	14	7	6	16	1	11	0	2	2	59
May	7	4	5	9	0	7	0	2	2	36
Jun	14	3	8	12	0	7	0	1	2	47
Jul	16	3	5	13	0	6	0	2	3	48
Aug	16	3	4	9	2	11	0	0	1	46
Sep	12	3	5	18	1	13	0	0	2	54
Oct	10	4	5	11	0	10	0	3	2	45
Nov	18	6	1	6	0	4	0	2	1	38
Dec	5	7	7	14	1	11	0	1	2	48
YR Totals	143	52	66	150	10	103	0	14	20	558

\*Other Routes are MoDOT maintained non-freeway routes and were not included on system until July 2015

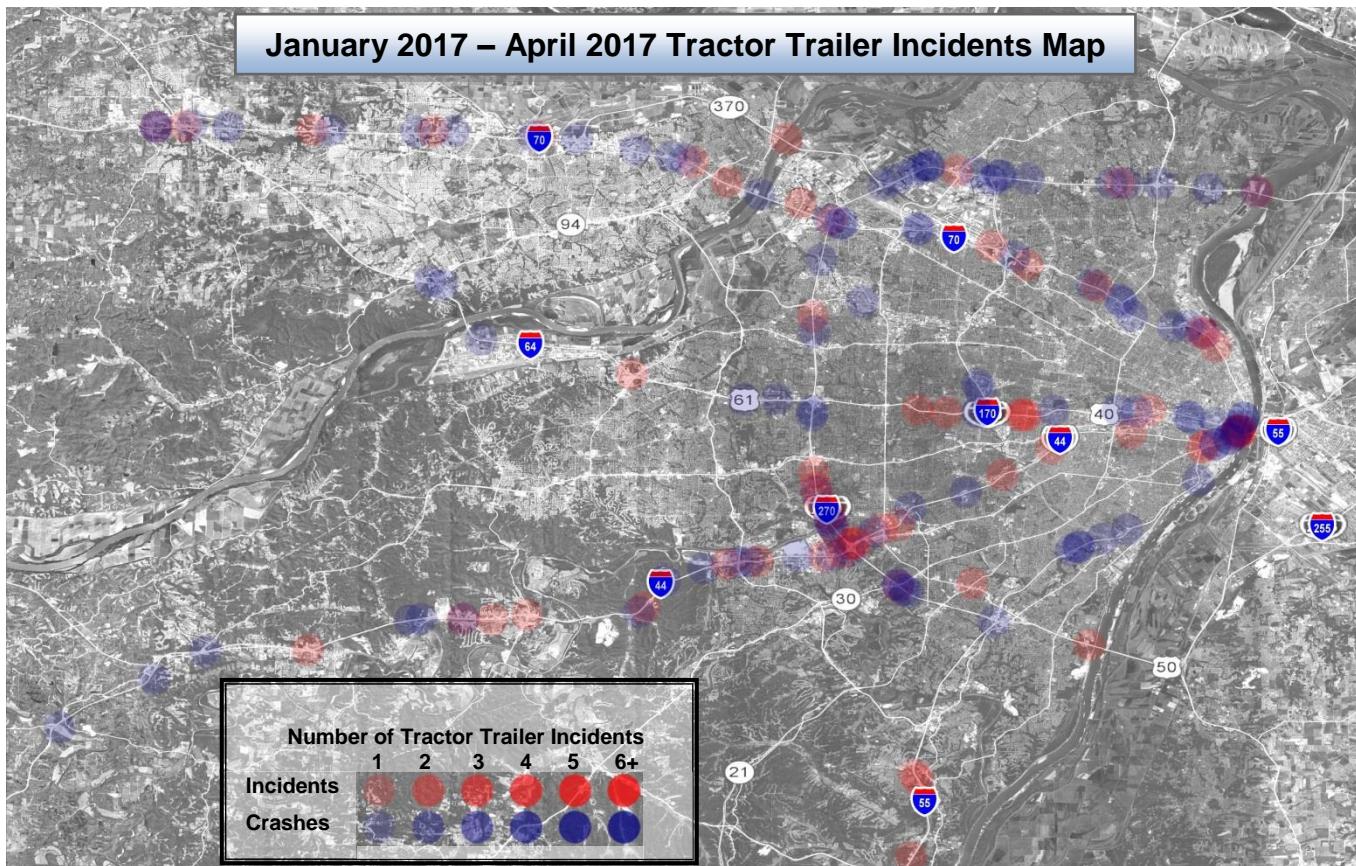
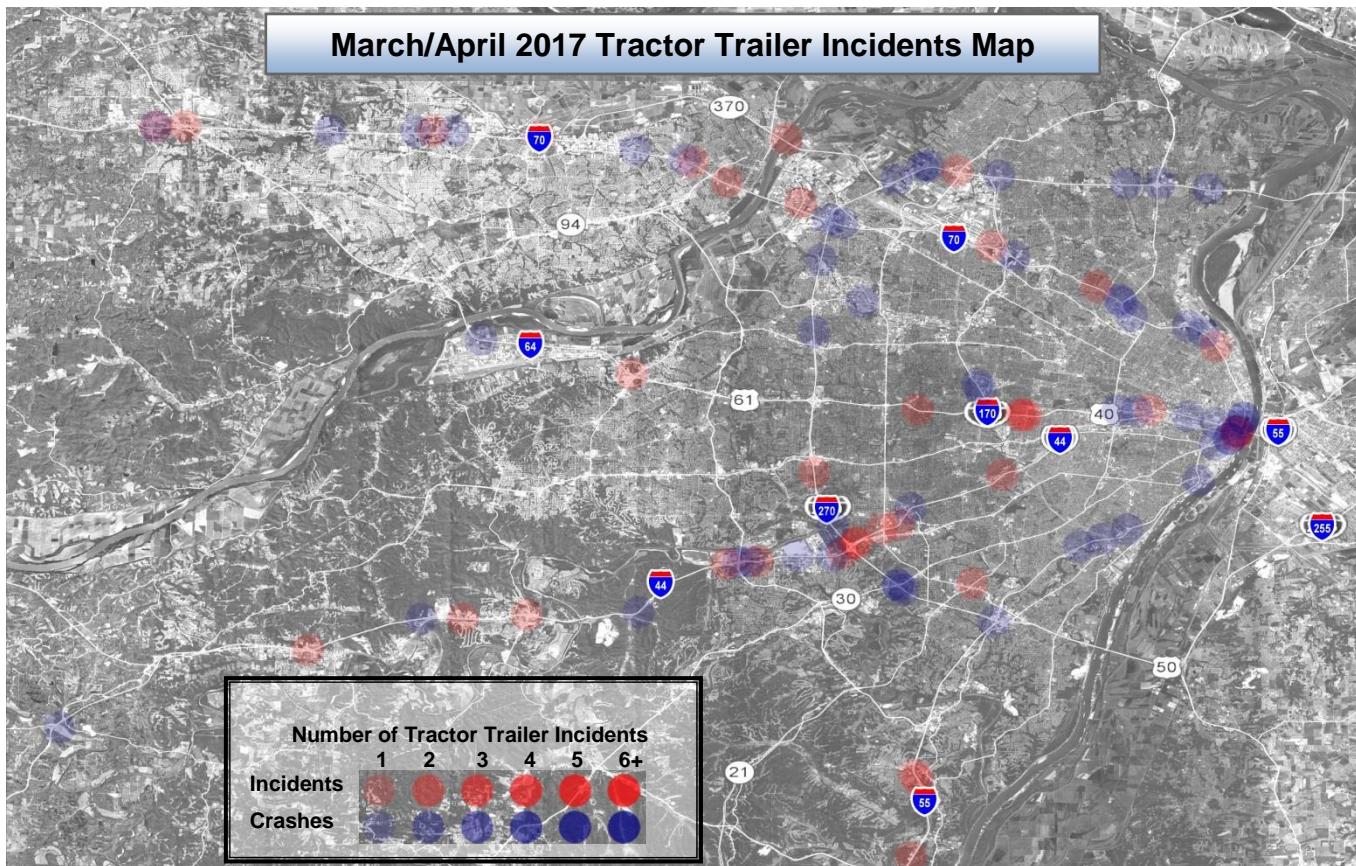
# INCIDENT MANAGEMENT



2017	I-44	I-55	I-64	I-70	I-170	I-255 / I-270	Route 364	Route 370	* Other	Total
Jan	11	4	4	11	0	15	0	0	0	45
Feb	10	2	4	6	1	9	0	0	0	32
Mar	12	7	7	12	1	7	0	0	2	48
Apr	16	3	5	10	1	7	0	1	3	46
May										0
Jun										0
Jul										0
Aug										0
Sep										0
Oct										0
Nov										0
Dec										0
YR Totals	49	16	20	39	3	38	0	1	5	171

\*Other Routes are MoDOT maintained non-freeway routes and were not included on system until July 2015

# INCIDENT MANAGEMENT



## Major Impact Traffic Incidents and Mitigation

3/6/2017 (Monday)

- **Time:** 4:04 am – 8:15 am
- **Location:** St. Louis County – Eastbound I-64 past Chesterfield Airport Road
- **Event Type:** Multi-Vehicle Crash Involving Wrong Way Driver
- **Estimated Initial Impact:** Rush Hour: 3 of 3 lanes affected equals (=) 100%
- **Incident Details:** SUV was traveling westbound in the eastbound lanes of I-64. The wrong way driver struck a tractor trailer then a car head on. The SUV then overturned and came to rest on left shoulder.
- **Action Taken:** Chesterfield Police Department blocked all lanes to work the scene. Reconstruction arrived on scene to investigate. MoDOT Emergency Response diverted traffic onto Chesterfield Airport Road. The Gateway Green Light Engineer attempted to make necessary adjustments in signal timing for traffic. The EOC, Motor Carriers, Area Engineer, Communications Staff, Maintenance Superintendent, and the MoDOT Incident Management Coordinator were all notified. The TMC messaged for the event and entered it into TMS to notify the public of the closure. A SLAdmin Text alert was also sent out. The traffic queue reached 3 miles at its peak.
- **Event Duration:** 4 hours 11 minutes

Eastbound I-64 past Chesterfield Airport Road	Left Shoulder	Lane 1	Lane 2	Lane 3	Right Shoulder
					
Closed Hours/Minutes	0:00	4:11	4:07	3:33	4:07

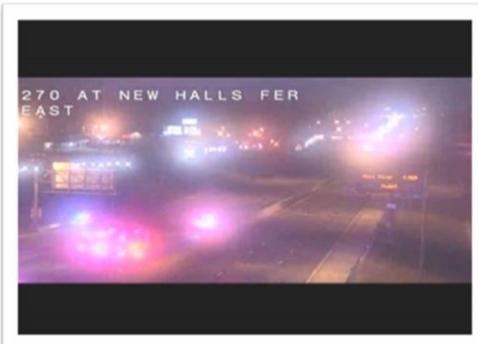


## Major Impact Traffic Incidents and Mitigation

3/8/2017 (Wednesday)

- **Time:** 5:12 am – 8:37 am \*\*\*Fatality\*\*\*
- **Location:** St. Louis County – Westbound I-270 at Old Halls Ferry Road
- **Event Type:** Multi-Vehicle Crash with Pedestrian Struck
- **Estimated Initial Impact:** Rush Hour: 4 of 4 lanes affected equals (=) 100%
- **Incident Details:** A pedestrian was struck on Westbound I-270 at New Halls Ferry Road. Police shut down all of the westbound lanes.
- **Action Taken:** Saint Louis County Police Department contacted the TMC advising that this was a fatal crash. The TMC started DMS messaging for the closure on Westbound I-270 and MoDOT Emergency Responders were dispatched. Saint Louis County Police Department began diverting at Old Halls Ferry Road exit and traffic was able to get back on at the New Halls Ferry Road entrance ramp. The event was entered into TMS to advise the public of the closure. The EOC, IDOT, Communications Staff, Motor Carriers, and the MoDOT Incident Management Coordinator were all notified and a SLAdmin Text was sent out. Reconstruction was completed by Missouri State Highway Patrol.
- A traffic engineer was contacted to adjust the traffic signal timing. Saint Louis County Police put the signals at Dunn and New Halls Ferry Road on red flash until signal timing could be adjusted. Traffic diversion was then changed from Old Halls Ferry Road to Route 367. At approximately 6:30 am the timing plans were reviewed and placed on manual run pattern 77 at both intersections due to the larger split for the critical phases, in this case the westbound movement (phase 4 at both intersections). After several cycles were observed, it was discovered that the westbound movement was gapping out at intersection 3046 during more than one cycle. It was determined to change the coordinated phase from phase 2 & 6 to phase 4 and also increase the cycle length by 20 seconds giving that time to the westbound movement. A time space diagram for these two intersections was made along with adjustments to the offsets. Observations of the side streets continued for increased queues. Queues remained manageable with the cycle length increase. At its peak, the traffic queue was 3.2 miles.
- **Event Duration:** 3 hours 25 minutes

Westbound I-270 at Old Halls Ferry Road	Left Shoulder	Lane 1	Lane 2	Lane 3	Lane 4	Right Shoulder
						
Closed Hours/Minutes	0:00	3:25	3:25	3:25	3:25	3:25



## Major Impact Traffic Incidents and Mitigation



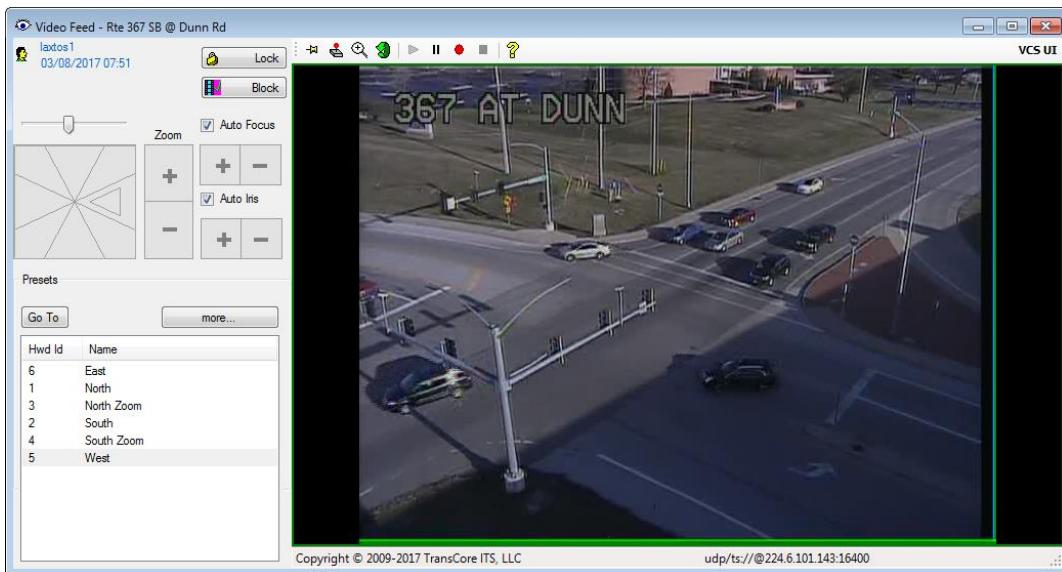
Southbound movement at New Halls Ferry



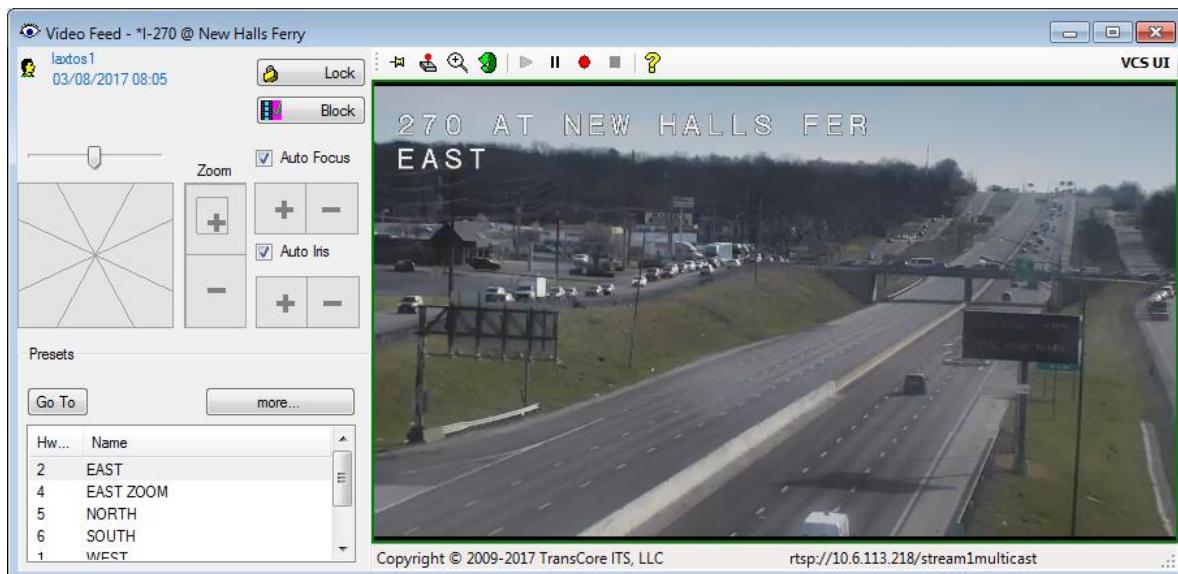
Observations continued to the next ring of potential signal impacts. Traffic was being diverted onto Southbound Route 367 and without camera coverage, observations were minimal. Traffic engineers monitored Route 367 @ Dunn and did not observe any significant impacts to queues.



## Major Impact Traffic Incidents and Mitigation



The Westbound I-270 queue was cleared and the signals were returned to Normal mode at approximately 8:30 am. The interstate was opened at approximately 8:35 am.



## Major Impact Traffic Incidents and Mitigation

3/11/2017 (Saturday)

- **Time:** 7:06 am – 10:09 am \*\*\*Fatality\*\*\*
- **Location:** St. Louis County – Westbound I-64 at Route 141
- **Event Type:** Multi-Vehicle Crash
- **Estimated Initial Impact:** Non-Rush Hour: 4 of 4 travel lanes affected equals (=) 100%
- **Incident Details:** A vehicle struck Town and County Police SUV on the shoulder and spun into lighting pole on the outer road.
- **Action Taken:** MoDOT Emergency Response arrived on scene to block the two right lanes and Police blocked the North Outer Road. The Communication Staff, MoDOT Incident Management Coordinator and SL EOC were all notified. The TMC messaged for the event to notify traffic on I-64 and I-270. The traffic queue reached 1.6 miles, but returned to normal after the left lanes were opened. The two right lanes remained closed due to accident reconstruction.
- **Event Duration:** 3 hours and 2 minutes

Westbound I-64 at Route 141	Left Shoulder	Lane 1	Lane 2	Lane 3	Lane 4	Right Shoulder
						
Closed Hours/Minutes	0:00	0:37	0:41	2:44	2:44	2:45



## Major Impact Traffic Incidents and Mitigation

3/14/2017 (Tuesday)

- **Time:** 4:22 am – 7:13 am \*\*\*Fatality\*\*\*
- **Location:** St. Charles County – Westbound I-64 Ramp to Route K
- **Event Type:** Two-Vehicle Crash
- **Estimated Initial Impact:** Rush Hour: 3 of 3 lanes affected equals (=) 100%
- **Incident Details:** An overturned vehicle on the ramp to Route K with another vehicle on the left shoulder. One vehicle slammed into the other causing it to roll over. The driver of the SUV was killed and the passenger of the SUV was transported with serious injuries.
- **Action Taken:** Saint Charles County Police Department blocked the Westbound I-64 ramp to Route K. Saint Charles Fire arrived on scene and partially blocked the end of the ramp from Westbound MO 94 to Route K / Westbound I-64. Police and MoDOT Emergency Response briefly blocked Lane two for the accident reconstruction team to investigate. The Communication Staff, Motor Carriers, and the MoDOT Incident Management Coordinator were all notified. The TMC activated DMS board to notify the public of the closure. An incident alert, update, and cleared alert were all used to advise management of the ramp closure. The traffic queue reached 2.7 miles, but returned to normal approximately an hour after the start of the incident.
- **Event Duration:** 2 hours 51 minutes

Westbound I-64 Ramp to Route K	LX1	Lane 1	RX1
			
Closed Hours/Minutes	2:46	2:46	2:51

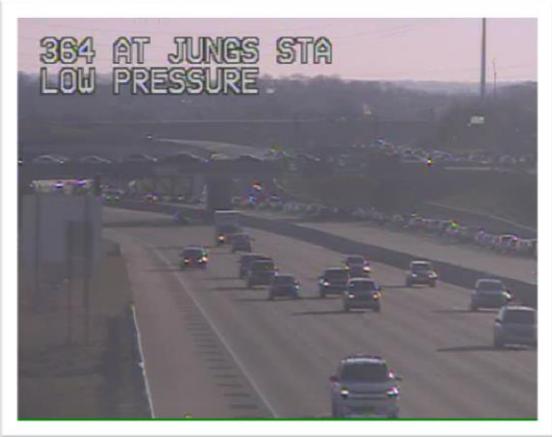


## Major Impact Traffic Incidents and Mitigation

3/15/2017 (Wednesday)

- **Time:** 6:17 am – 8:30 am
- **Location:** St. Charles County – Eastbound MO 364 at MO 94
- **Event Type:** Multi-Vehicle Crash
- **Estimated Initial Impact:** Rush Hour: 3 of 3 travel lanes affected equals (=) 100%
- **Incident Details:** An accident on Eastbound MO 364 at MO 94. All lanes remained closed due to minor reconstruction by Missouri State Highway Patrol and a large amount of debris across the roadway.
- **Action Taken:** Several MoDOT Emergency Response Units arrived on scene to provide traffic control due to entrance ramps to Eastbound MO 364 needing to be closed. All traffic was diverted to Woodstone by MoDOT Emergency Response. The communication Staff and the MoDOT Incident Management Coordinator were notified. The TMC activated the proper DMS boards. The event was entered into TMS to notify the public of the closure. The traffic signals were adjusted to help mitigate traffic on MO 364 South Outer Road. The traffic queue reached 2.75 miles and returned to normal almost immediately following lane opening.
- **Event Duration:** 2 hours 12 minutes

Eastbound MO 364 at MO 94	Left Shoulder	Lane 1	Lane 2	Lane 3	Right Shoulder
 <b>Route 364</b>					
Closed Hours/Minutes	2:12	2:12	2:12	2:12	2:12



## Major Impact Traffic Incidents and Mitigation

3/20/2017 (Monday)

- **Time:** 11:54 am – 2:12 pm
- **Location:** St. Louis City – Eastbound I-64 at McCausland Avenue
- **Event Type:** Two-Vehicle Crash
- **Estimated Initial Impact:** Non-Rush Hour, 2 of 3 travel lanes affected equals (=) 66.66%
- **Incident Details:** Saint Louis City Police closed Lane 1 for a two vehicle crash with injuries.
- **Action Taken:** MoDOT Emergency Response was dispatched to provide traffic control. The incident was put into ATMS and the proper DMS boards were activated to notify the public of the incident. The extended duration of the event was due to Police requesting an Evidence Tech Unit to the scene. The Evidence Technician Unit investigation took an hour to complete. Police took Lane 2 for tow to recover the vehicle. The queue reached 2.2 miles on I-64 and a ½ mile on Southbound I-70. Traffic returned to normal shortly after all lanes opened.
- **Event Duration:** 2 hours 18 minutes

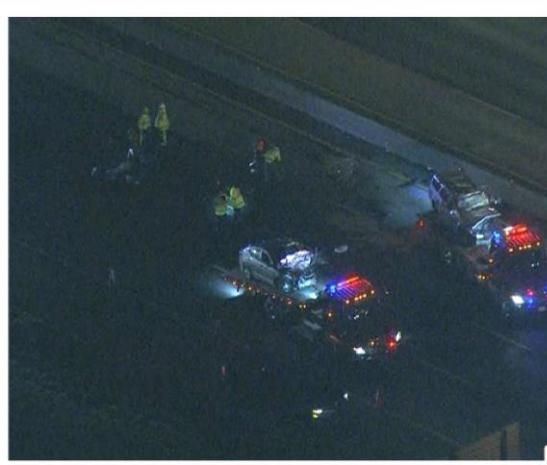
Eastbound I-64 at McCausland Avenue	Left Shoulder	Lane 1	Lane 2	Lane 3	Right Shoulder
					
Closed Hours/Minutes	2:18	2:18	0:24	0:00	0:00

## Major Impact Traffic Incidents and Mitigation

3/22/2017 (Wednesday)

- **Time:** 3:15 am – 6:43 am \*\*\*2 Fatalities\*\*\*
- **Location:** St. Louis County – Northbound I-55 before Reavis Barracks Road
- **Event Type:** Two-Vehicle Crash
- **Estimated Initial Impact:** Non-Rush Hour, 4 of 4 travel lanes affected equals (=) 100%
- **Incident Details:** A two vehicle crash with an overturned car and fatality reportedly caused by a wrong way driver. Driver 1 was driving southbound in the northbound lanes. Driver 2 died at the scene; Driver 1 died shortly after at the hospital.
- **Action Taken:** Saint Louis County Police Department and Missouri State Highway Patrol blocked all lanes and diverted traffic off at Lindbergh. EOC, Community Relations, MoDOT Emergency Response Supervisor, and Incident Management Coordinator were all notified. TMC messaged for incident and entered into TMC to notify public. The medical examiner arrived at 4:24 am and had equipment issues which added to the duration of the incident. The right shoulder reopened to traffic at 4:06 am with all lanes reopening at 6:43 am. There was a 3.2 mile queue and traffic returned to normal 15 minutes after the incident cleared.
- **Event Duration:** 3 hours 28 minutes

Northbound I-55 before Reavis Barracks Road	Left Shoulder	Lane 1	Lane 2	Lane 3	Lane 4	Right Shoulder
						
Closed Hours/Minutes	3:25	3:25	3:25	3:25	3:17	0:40



## Major Impact Traffic Incidents and Mitigation

3/22/2017 (Wednesday)

- **Time:** 7:46 am – 10:18 am
- **Location:** St. Louis County – Eastbound I-44 past Route 141
- **Event Type:** Multi-Vehicle Crash
- **Estimated Initial Impact:** Rush Hour: 3 of 4 travel lanes affected equals (=) 75%
- **Incident Details:** A crash involving a tractor trailer and five other vehicles. Traffic was slowing down for a crash ahead which resulted in a chain reaction crash.
- **Action Taken:** Several MoDOT Emergency Response Operators were dispatched along with the Incident Management Coordinator. Missouri Highway Patrol, Saint Louis County Police, Fire, and EMS blocked Lanes 2, 3, and 4. The TMC activated numerous DMS boards to notify the traveling public of the incident. Traffic was able to use Lane 1 to get by, but the queue still stretched back 7 miles. The incident was entered into TMS. I44-IM and SLAdmin text were sent out. EOC, Motor Carrier Services, and Communications were all notified.
- **Event Duration:** 2 hours 32 minutes

Eastbound I-44 past MO 141 	Left Shoulder	Lane 1	Lane 2	Lane 3	Lane 4	Right Shoulder	
Closed Hours/Minutes		0:00	0:00	2:01	2:07	2:29	2:32



## Major Impact Traffic Incidents and Mitigation

3/30/2017 (Thursday)

- **Time:** 3:44 pm – 7:42 pm
- **Location:** St. Louis City – Westbound I-44 past Memorial Drive
- **Event Type:** Multi-Vehicle Crash with Fuel Spill
- **Estimated Initial Impact:** Rush Hour: 3 of 3 Lanes Affected equals (=) 100%
- **Incident Details:** A four vehicle crash including a diesel tanker that began leaking fuel after the collision. The vehicles involved in the crash continued to travel for approximately one half of a mile before pulling over. Fuel had spread across Lanes 2 and 3. The vehicles involved blocked Lane 3. Lane 1 was briefly closed while maintenance cleaned the spill.
- **Action Taken:** TMC staff put the event into ATMS system which resulted in an entry being populated on the TMS map. MoDOT Emergency Response operator arrived on scene, who advised that maintenance crews be called out. MoDOT Emergency Response put down oil dry, but was unable to clean up the spill. TMC Operators dispatched “All Units Available” to MoDOT Emergency Response Operators to assist with more oil dry. Maintenance arrived on scene and finished the cleanup. I44-IM and I70-IM notifications were both sent out. IDOT was advised of the incident, just in case the traffic queue reached Stan Musial Bridge. The queue reached 2.4 miles, but was non-existent when incident cleared.
- **Event Duration:** 3 hours 58 minutes

Westbound I-44 past Memorial Drive	Left Shoulder	Lane 1	Lane 2	Lane 3	Right Shoulder
					
Closed Hours/Minutes	0:23	0:23	2:36	3:58	3:58



## Major Impact Traffic Incidents and Mitigation

3/31/2017 (Friday)

- **Time:** 7:15 pm – 9:01 pm
- **Location:** St. Louis City – Eastbound I-44 at I-55
- **Event Type:** Police Activity
- **Estimated Initial Impact:** Rush Hour: 4 of 4 travel lanes affected equals (=) 100%
- **Incident Details:** Police pursuit began in the city and then moved to the interstate. The suspect collided with multiple police vehicles. The tires of the suspect's vehicle were flattened and the vehicle eventually stopped. When the pursuit came to an end, the suspect and police fired shots on the interstate. Once the suspect was neutralized, the interstate was closed and treated as a crime scene.
- **Action Taken:** St. Louis City Police closed all lanes on Eastbound I-44, but left the ramp to Southbound I-55 open and used it for traffic diversion. MoDOT Emergency Response Operators were on scene providing traffic control. TMC Operators put the incident into ATMS, which populated a TMS entry. Proper DMS boards were activated on I-44, I-270, and US 67 to give motorist advance warning to take another route. EOC, Communications, Motor Carriers, City Area Engineer, and MoDOT Emergency Response Supervisor were all notified. The I44-IM and SLAdmin Text were sent out with updates every hour.
- **Event Duration:** 2 hours 46 minutes

Westbound I-44 at I-55	Left Shoulder	Lane 1	Lane 2	Lane 3	Lane 4	Right Shoulder
						
Closed Hours/Minutes	2:46	2:46	2:46	2:42	2:42	2:42



## Major Impact Traffic Incidents and Mitigation

4/10/2017 (Monday)

- **Time:** 5:05 pm – 8:11 pm
- **Location:** St. Louis County – Eastbound/Westbound MO 340 at Ross Avenue and Questover Lane
- **Event Type:** One Vehicle Crash
- **Estimated Initial Impact:** Rush Hour: 2 of 2 travel lanes affected equals (=) 100%
- **Incident Details:** The TMC operators received a call from police stating that a construction vehicle struck a MoDOT signal that caused the signal to be knocked down. The TMC dispatched MoDOT Emergency Response to the scene.
- **Action Taken:** Creve Coeur Police Department blocked Lanes 1 and 2. Police and Mehlville Fire arrived on scene and started diverting traffic. Westbound MO 340 was diverted onto Ross Avenue and traffic was able to take county roads along the westbound shopping plaza and back onto MO 340. Eastbound MO 340 traffic was diverted onto Barnes West Drive and was able to drive through the eastbound shopping plaza back onto MO 340. The Gateway Green Light Engineer was notified and began to adjust necessary signal timing for traffic. The TMC Signal Operator dispatched a signal electrician to the scene to place stop signs and secure the traffic signal. The MoDOT Emergency Response Supervisor and Signal Supervisor were both notified. The TMC messaged for the event and entered it into TMS to notify the public of the closure. An incident alert, update, and cleared alert were used to advise management of the closure. Westbound MO 340 traffic queue reached 3 miles, but returned to normal almost immediately after all lanes were opened. Eastbound MO 340 traffic was less than a half of mile, but returned to normal almost immediately after all lanes were opened.
- **Event Duration:** 3 hours 6 minutes

Eastbound/Westbound MO 340 at Ross Avenue/Questover Drive	Left Shoulder	Lane 1	Lane 2	Right Shoulder
				
Closed Hours/Minutes	3:06	3:06	1:22	1:22



## Major Impact Traffic Incidents and Mitigation

4/15/2017 (Saturday)

- **Time:** 11:12 pm – 2:35 am    \*\*\*Fatality\*\*\*
- **Location:** St. Louis County – Southbound I-270 at I-44
- **Event Type:** Two-Vehicle Crash
- **Estimated Initial Impact:** Non-Rush Hour: 4 of 4 travel lanes affected equals (=) 100%
- **Incident Details:** Truck stalled in the lane (MoDOT was unaware and was neither notified nor en route). Another motorist stopped and exited their vehicle to help the stalled truck. While they were pushing the truck, a car struck the stalled truck and one of the pedestrians. The crash resulted in one injury and one fatality.
- **Action Taken:** TMC operators confirmed the incident on CCTV. The event was entered into ATMS and automatically populated onto the TMS map. Upon first glance, several cars were stopped in all lanes of Southbound I-270 and they seemed to be gathered around the injured party. DMS boards were activated at that time. Sunset Hills Police Department, Kirkwood Police Department, Missouri State Highway Patrol, Fenton Fire Department, and Fenton EMS all responded to the scene. MoDOT Emergency Response was dispatched to the scene. At 11:24 pm, Police notified the TMC that this was a confirmed fatality, so TMC personnel notified EOC, Area Engineer, Motor Carriers, MoDOT Emergency Response Supervisor, Incident Management Coordinator (Owen Hasson) and sent out the SLAdmin Text. MoDOT Emergency Response arrived on scene at 11:40 pm and began traffic control procedures. At first, Police set up a detour that diverted traffic to Westbound I-44. Police then decided to change the diversion to Dougherty Ferry. After the queue cleared, the diversion was changed back to Westbound I-44.
- **Event Duration:** 3 hours 23 minutes

Southbound I-270 at I-44	Left Shoulder	Lane 1	Lane 2	Lane 3	Lane 4	RX1	Right Shoulder
							
Closed Hours/Minutes	3:23	3:23	3:23	3:23	3:23	3:23	3:23



## Major Impact Traffic Incidents and Mitigation

4/20/2017 (Thursday)

- **Time:** 11:26 am – 2:00 pm
- **Location:** Saint Louis County – Eastbound I-64 at MO 340
- **Event Type:** Vehicle Fire
- **Estimated Initial Impact:** Non-Rush Hour: 3 of 3 travel lanes affected equals (=) 100%
- **Incident Details:** TMC operators found the incident on camera. Police and fire were on scene with a tractor trailer on fire. The tractor trailer was carrying non-hazardous materials.
- **Action Taken:** Fire and Chesterfield Police Department blocked Lanes 1, 2, and 3. Incident was entered into TMS and boards were activated on I-64 past Highway K, as well as on Highway 94. MoDOT Emergency Response was dispatched. Once on scene, flares and an Incident Ahead sign was placed at mile marker 16.2 to warn motorists. The traffic engineer was contacted to look at the signals at Boones Crossing and I-64 due to traffic backing up. There was a 1 hour 11 minute delay due to waiting for the fuel pump truck to arrive to extract fuel from the semi. The queue reached 3.6 miles.
- **Event Duration:** 2 hours 33 minutes

Eastbound I-64 at MO 340	Left Shoulder	Lane 1	Lane 2	Lane 3	Right Shoulder
					
Closed Hours/Minutes	0:00	0:22	2:11	2:11	2:11

## Major Impact Traffic Incidents and Mitigation

4/21/2017 (Friday)

- **Time:** 4:21 pm – 8:38 pm \*\*\*Fatality\*\*\*
- **Location:** Saint Louis County – Northbound I-270 past Dorsett
- **Event Type:** Multi-Vehicle Crash
- **Estimated Initial Impact:** Rush Hour – 4 of 5 travel lanes affected equals (=) 80%
- **Incident Details:** Maryland Heights Police Department telephoned the TMC requesting traffic control for a crash with possible fatality.
- **Action Taken:** A TMC operator entered the event into ATMS system which populated an event in TMS. The TMC personnel ran 12 DMS boards advising of this incident. MoDOT Emergency Response arrived on scene to provide traffic control. SLAdmin Text was sent out. Incident Management Coordinator Owen Hasson, MoDOT Communications Relations, and EOC were made within 30 minutes of the start of the event. The traffic queue reached 6.3 miles
- **Event Duration:** 4 hours 17 minutes

Northbound I-270 past Dorsett	Left Shoulder	Lane 1	Lane 2	Lane 3	RX1	RX2	Right Shoulder
							
Closed Hours/Minutes			3:52	4:09	4:14	4:14	4:17



# **FREEWAY MANAGEMENT**

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# FREEWAY MANAGEMENT

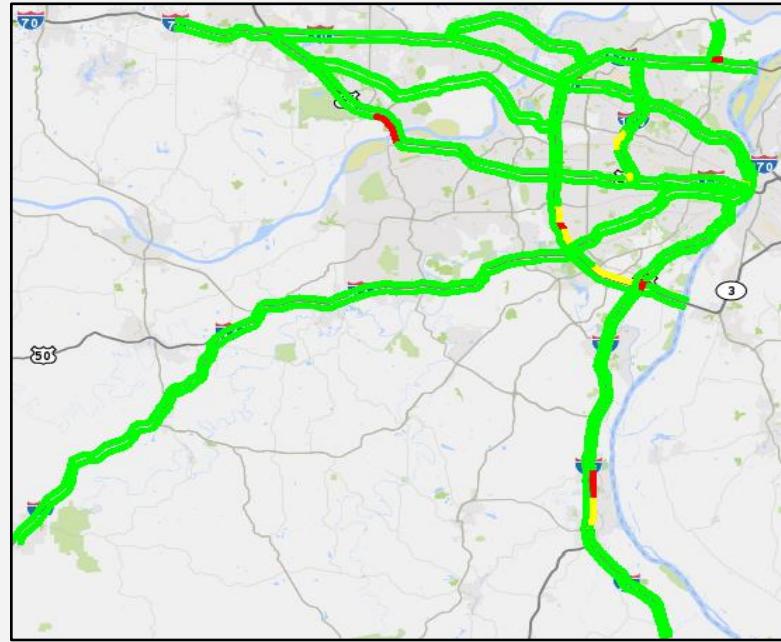
## AM PEAK PERIOD MOBILITY MARCH 2017

6 am – 7 am

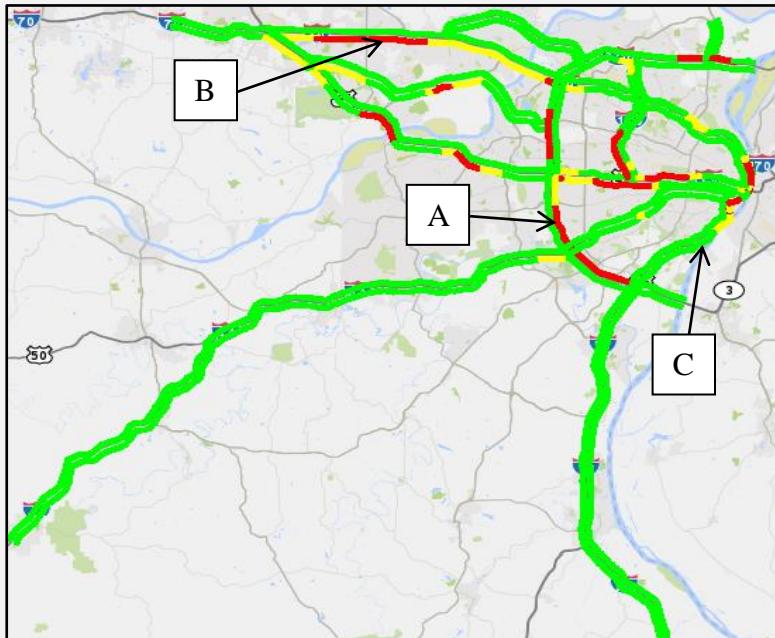
LEGEND (Speed Index)  
High Mobility (.90+)  
Medium Mobility (.80-.90)  
Low Mobility (< .80)

### Highlighted Heat Map Locations

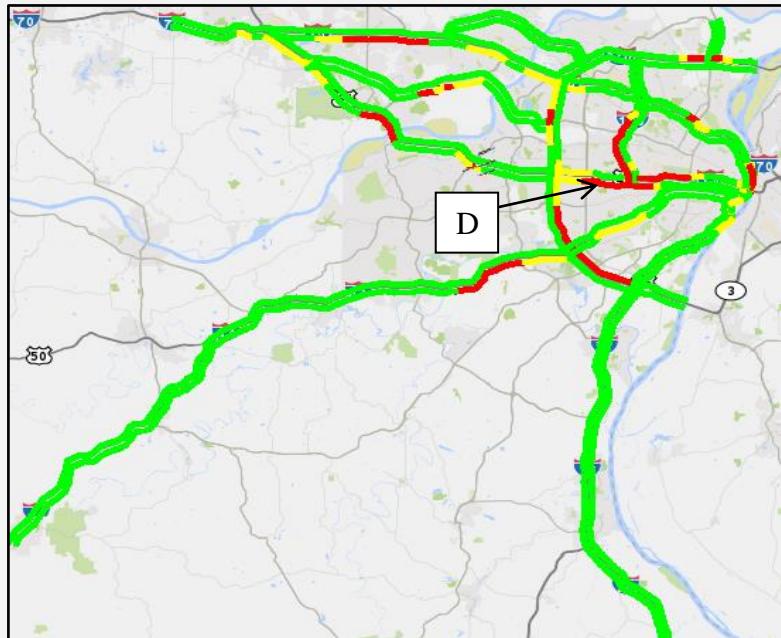
- A. NB I-270 from I-55 to I-64/US-40/US-61
- B. EB I-70 from US-40/US-61 to I-270
- C. NB I-55 from Loughborough to Park/7<sup>th</sup> St.
- D. EB I-64 from I-270 to McCausland



7 am – 8 am



8 am – 9 am

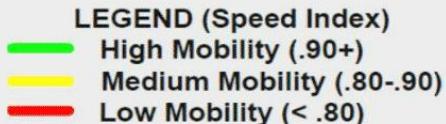




# FREEWAY MANAGEMENT

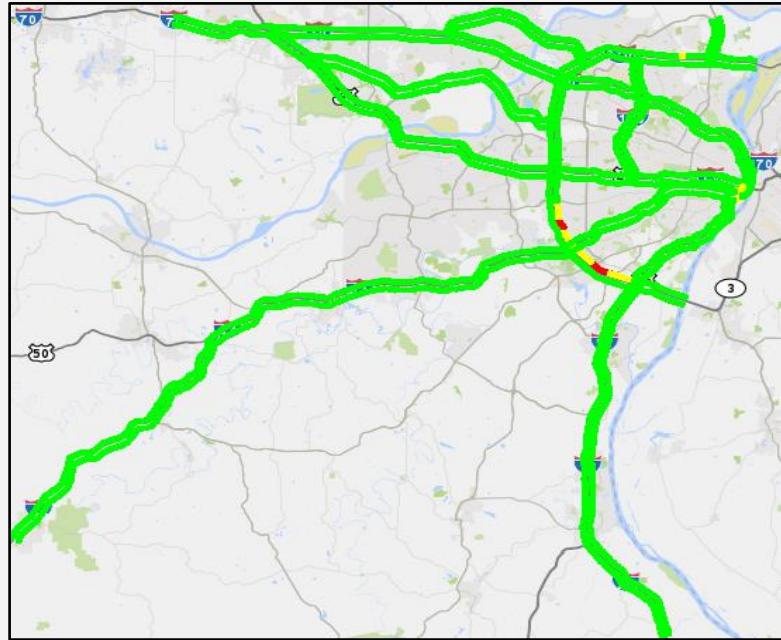
## AM PEAK PERIOD MOBILITY APRIL 2017

6 am – 7 am

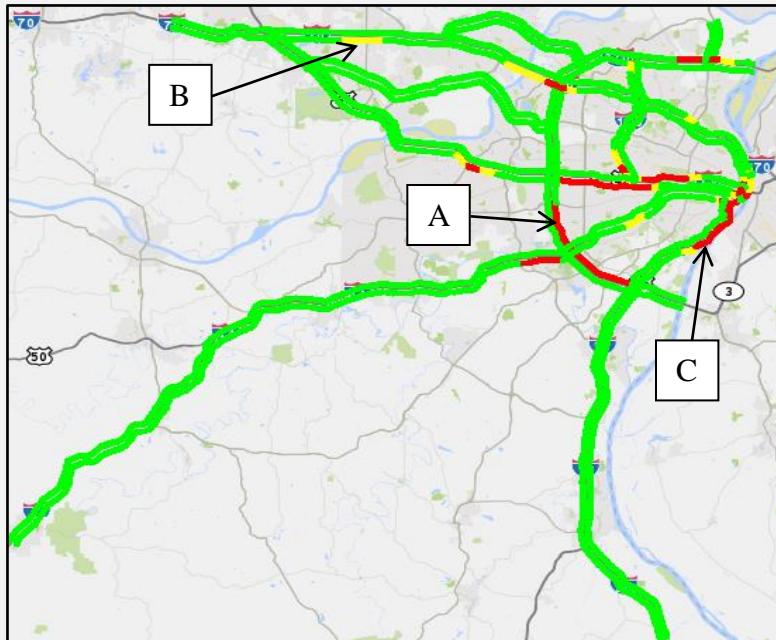


### Highlighted Heat Map Locations

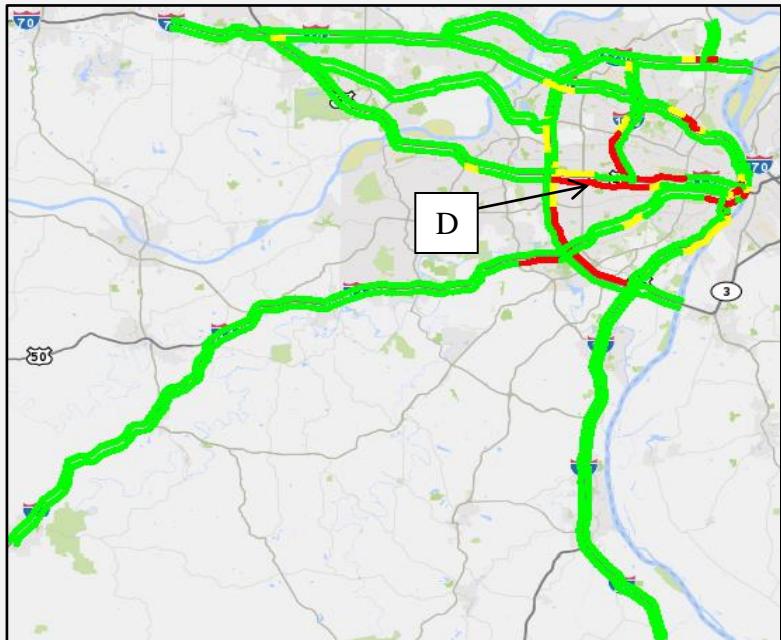
- NB I-270 from I-55 to I-64/US-40/US-61
- EB I-70 from US-40/US-61 to I-270
- NB I-55 from Loughborough to Park/7<sup>th</sup> St.
- EB I-64 from I-270 to McCausland



7 am – 8 am



8 am – 9 am



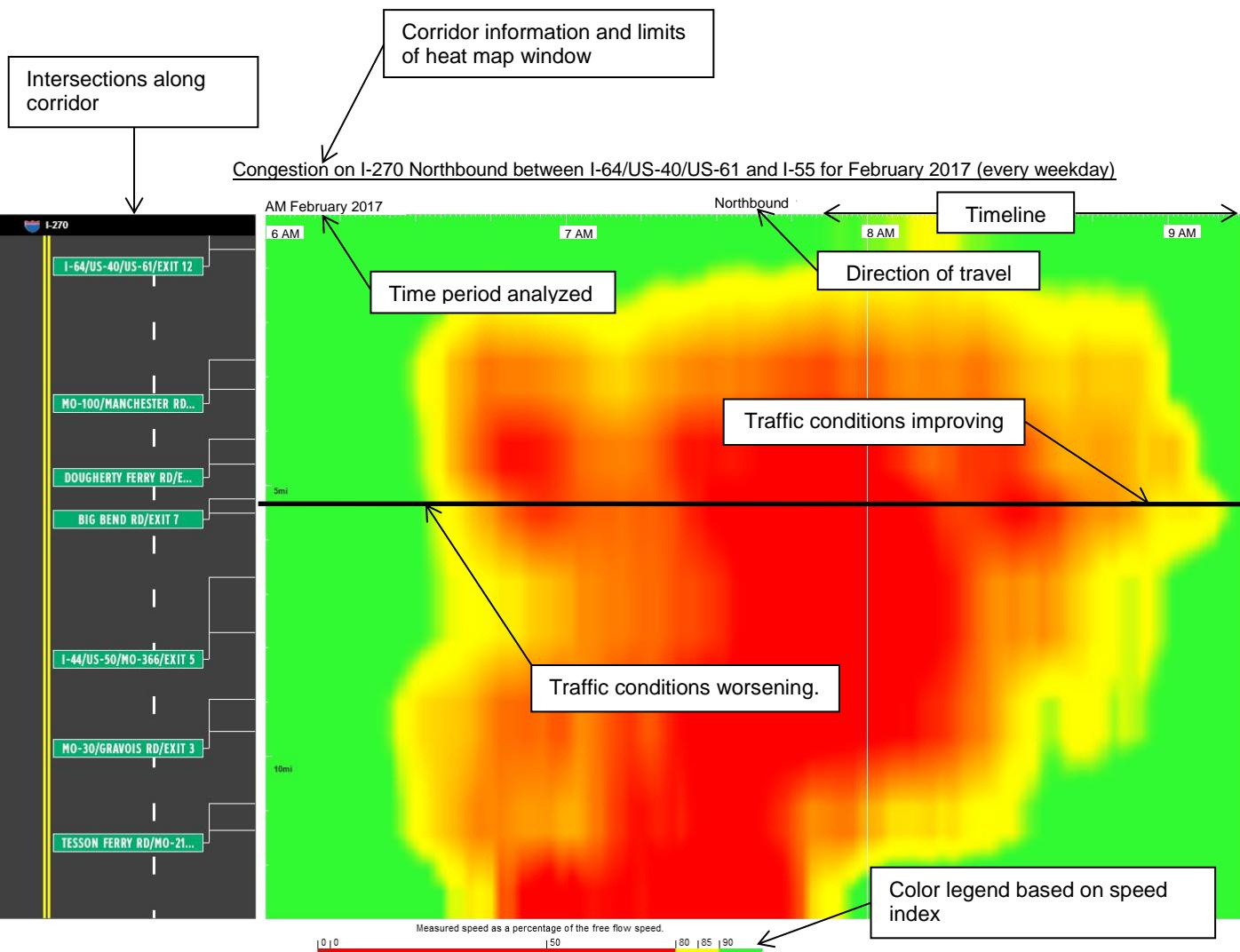


# FREEWAY MANAGEMENT

## How to read the Congestion Scan Heat Maps

- The heat maps depict congestion along a corridor over a set time period.
- The map below shows Northbound I-270 from I-55 to I-64 during the hours of 6am – 9am for the month of February 2017.
- Following a horizontal line across the heat map at a given intersection will show traffic conditions at that location over time. Using the intersection of Big Bend Road as an example the heat map depicts conditions worsening around 6:30am, starting to improve around 8:45am and near free flow speeds by 9:15am.
- Alternatively, tracing the heat map vertically depicts traffic conditions along the corridor at that moment in time.

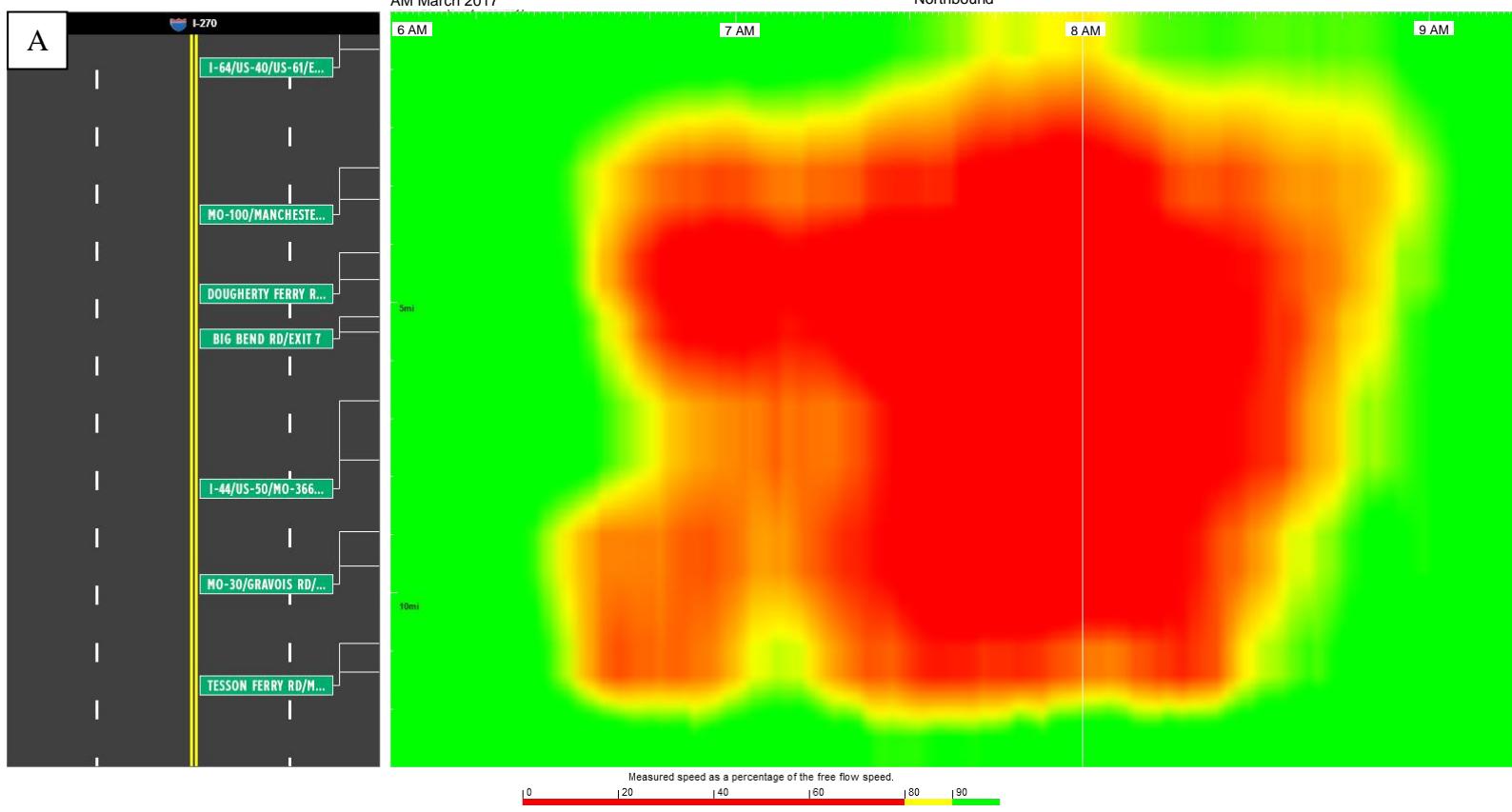
## EXAMPLE



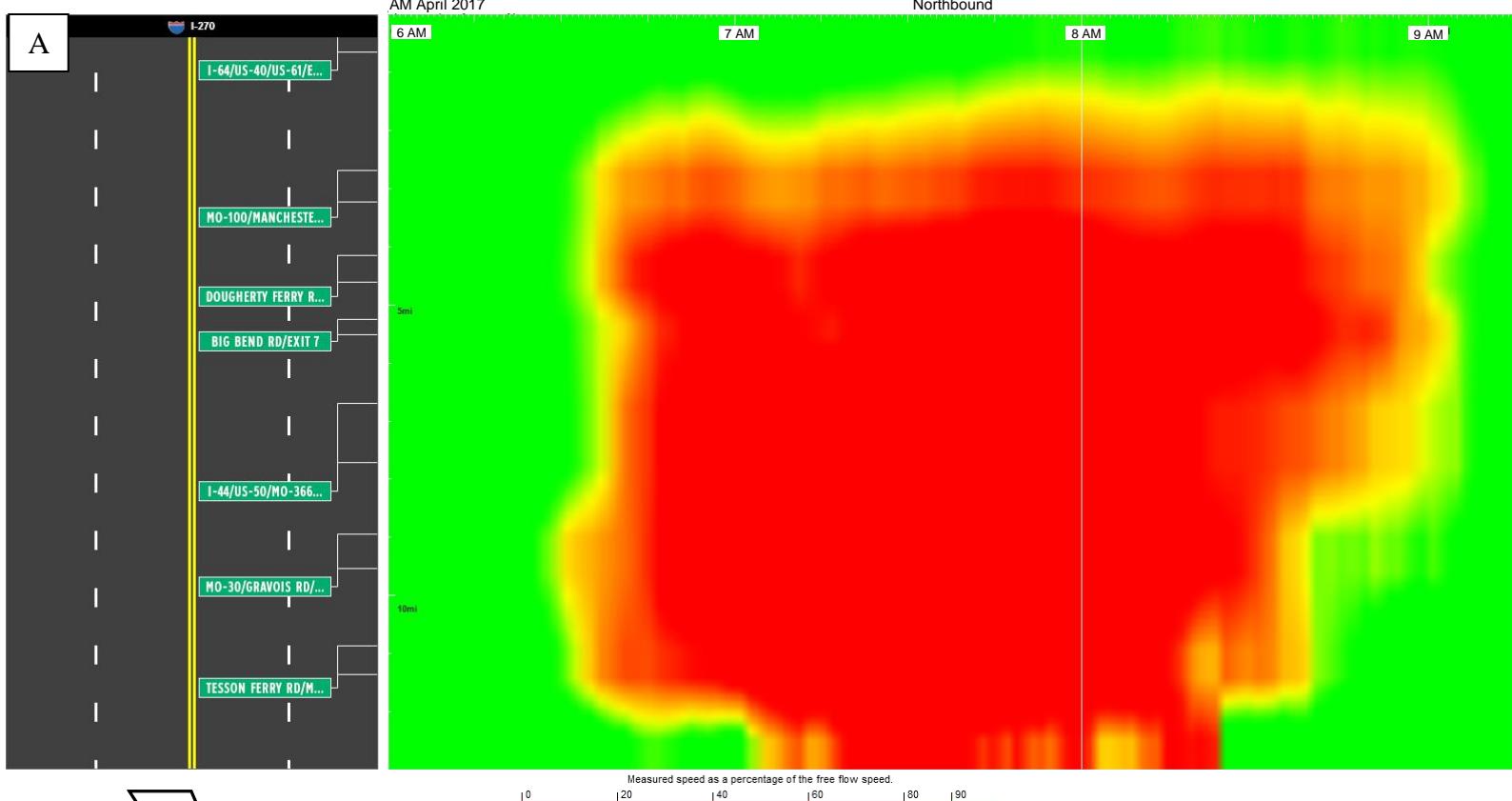


# FREEWAY MANAGEMENT

Congestion on I-270 Northbound between I-55 and I-64/US-40/US-61 for March 2017 (every weekday)



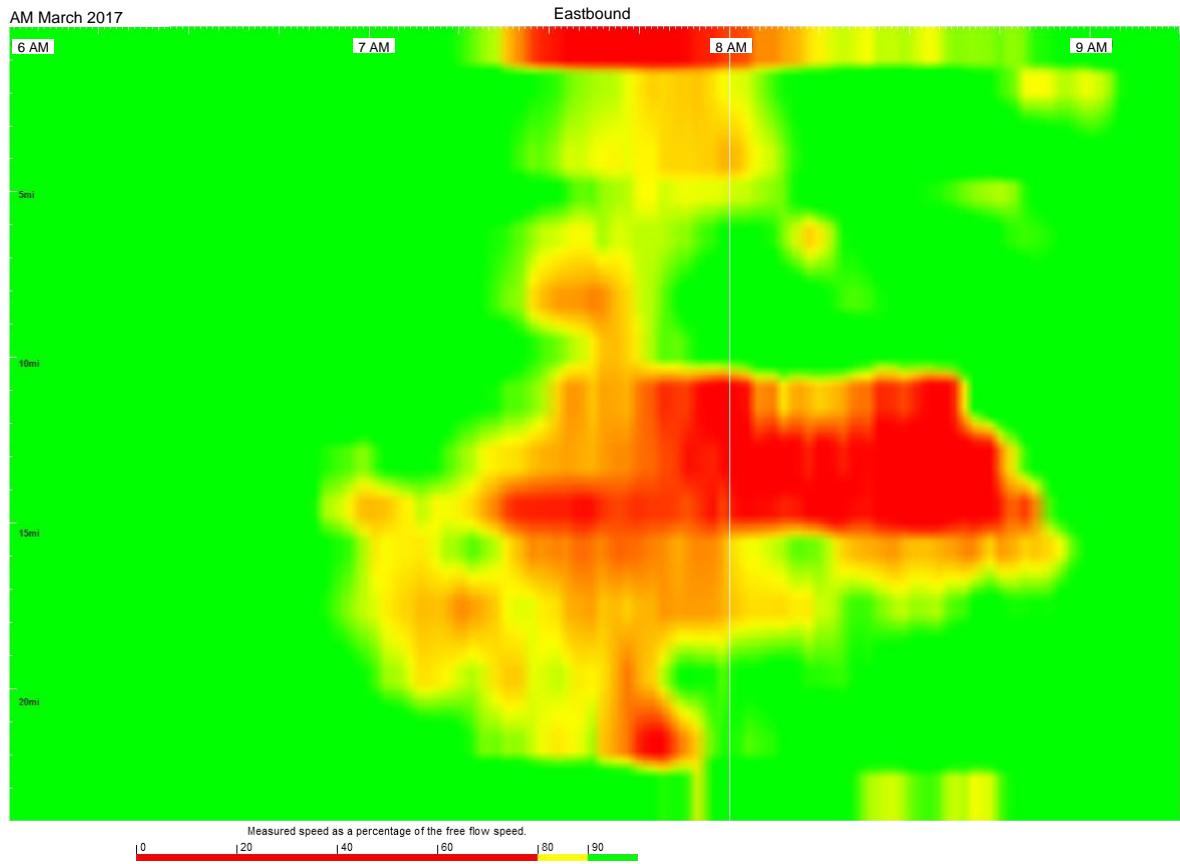
Congestion on I-270 Northbound between I-55 and I-64/US-40/US-61 for April 2017 (every weekday)



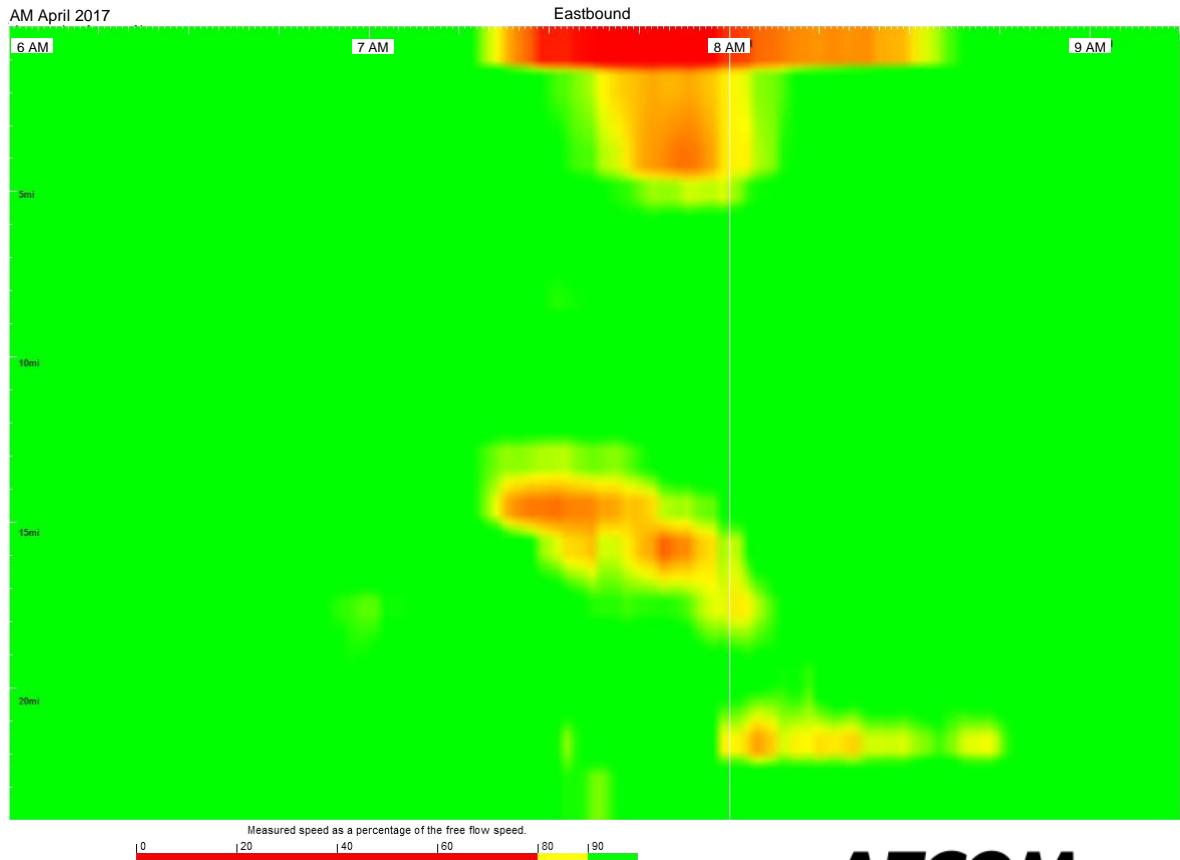


# FREEWAY MANAGEMENT

Congestion on I-70 Eastbound between US-40/US-61 and I-270 for March 2017 (every weekday)



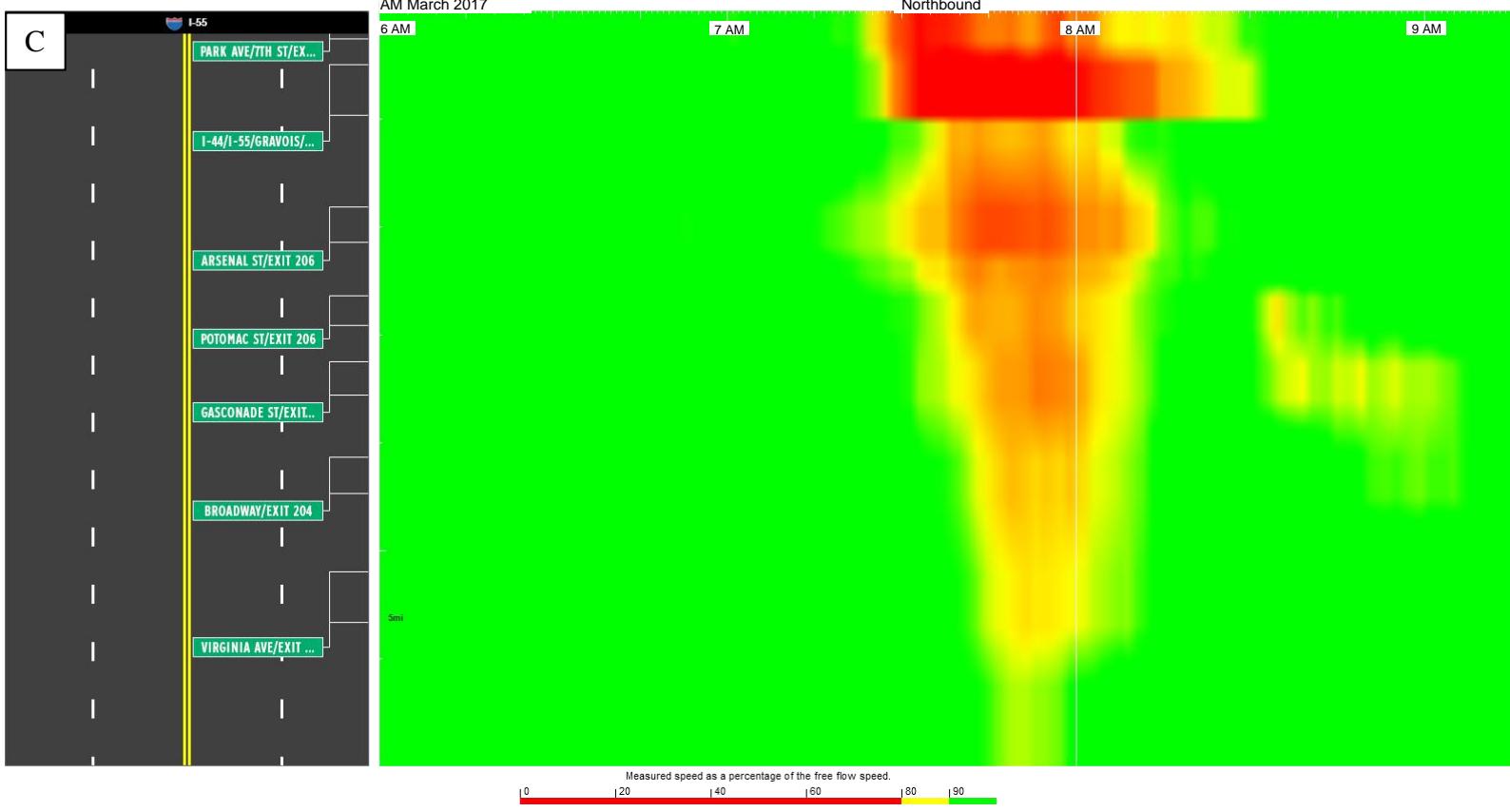
Congestion on I-70 Eastbound between US-40/US-61 and I-270 for April 2017 (every weekday)



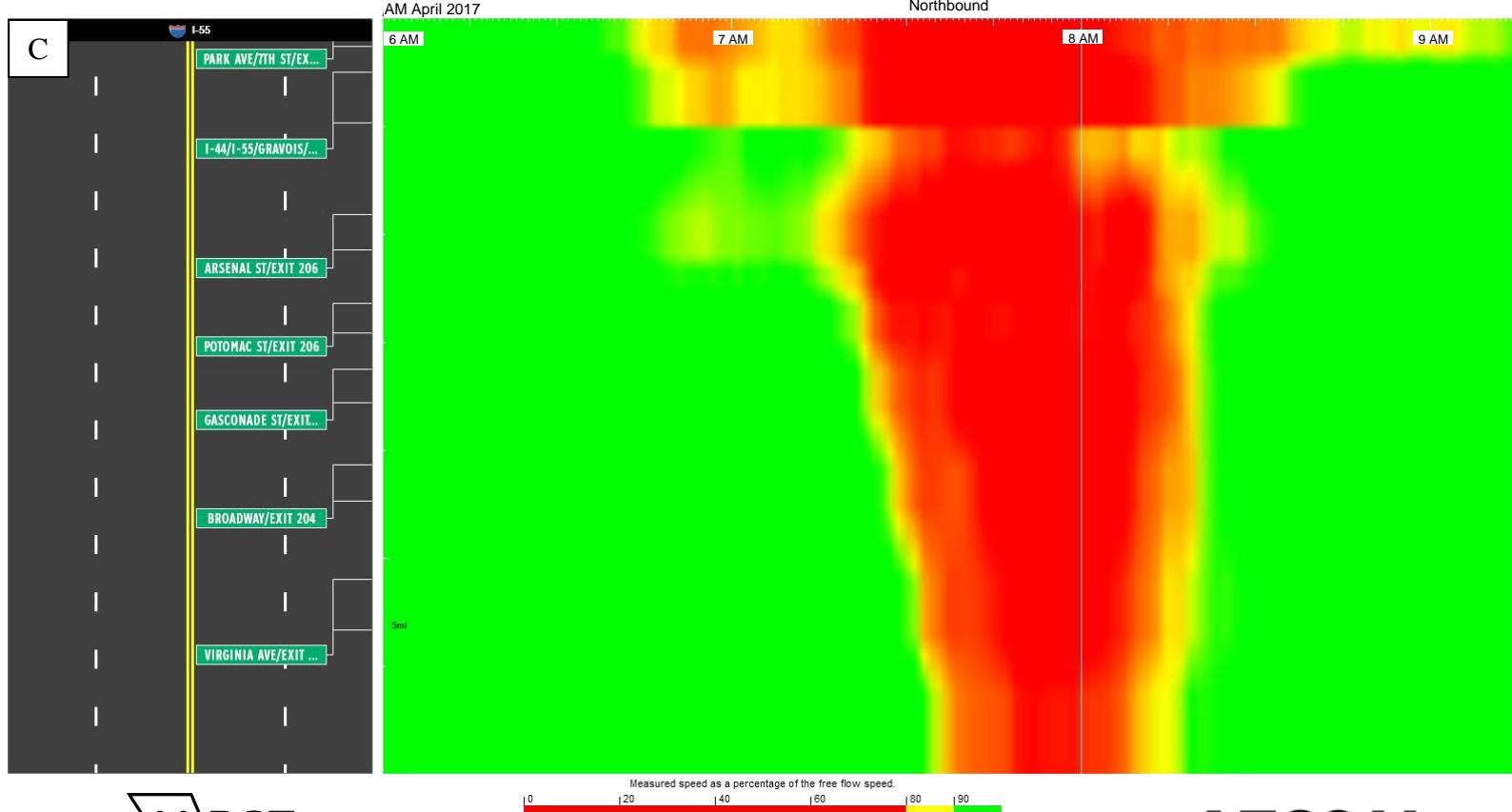


# FREEWAY MANAGEMENT

Congestion on I-55 Northbound between Loughborough and Park Ave/ 7<sup>th</sup> St. for March 2017 (every weekday)



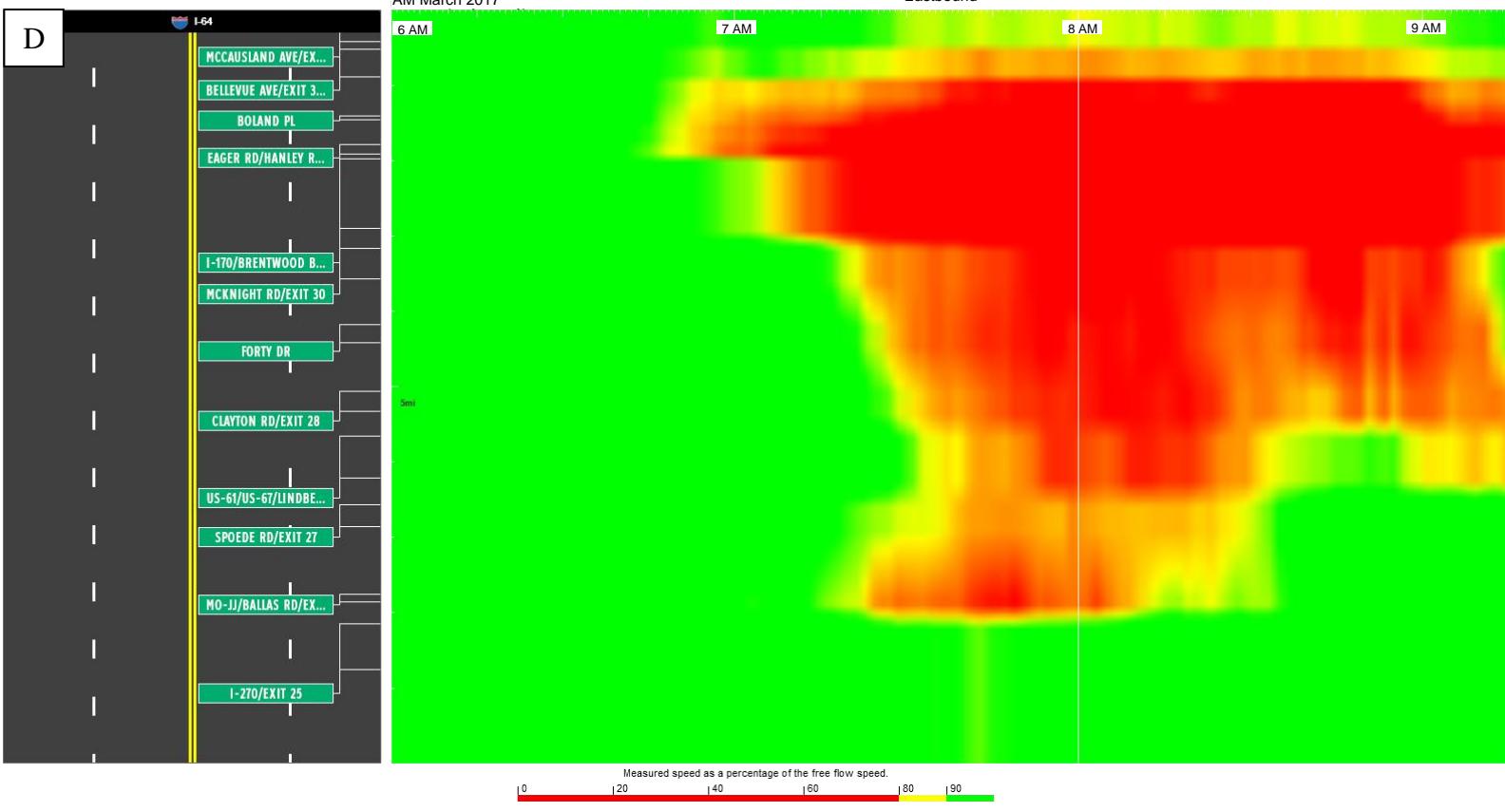
Congestion on I-55 Northbound between Loughborough and Park Ave/ 7<sup>th</sup> St. for April 2017 (every weekday)



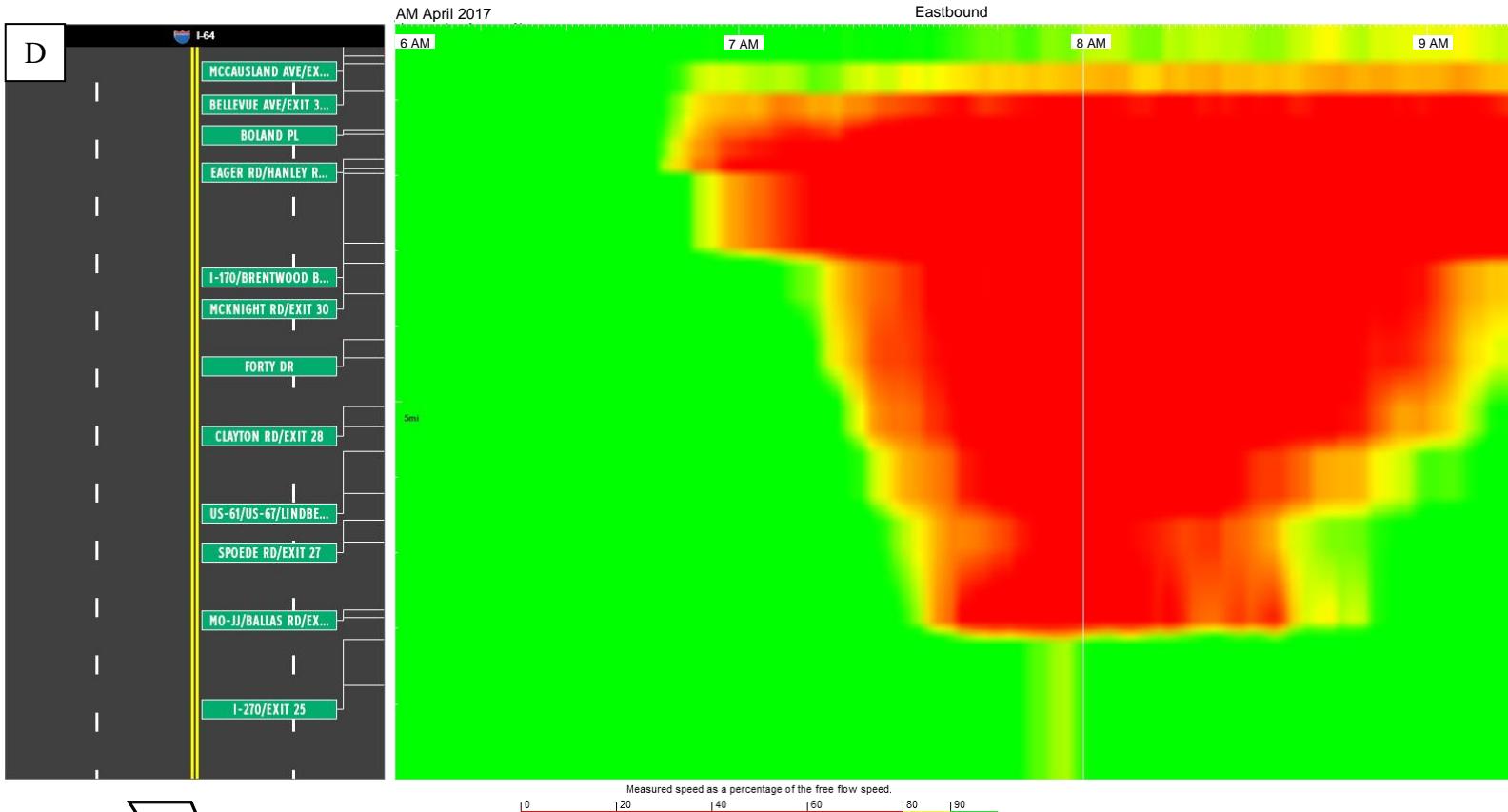


# FREEWAY MANAGEMENT

Congestion on I-64 Eastbound between I-270 and McCausland for March 2017 (every weekday)



Congestion on I-64 Eastbound between I-270 and McCausland for April 2017 (every weekday)





# **FREEWAY MANAGEMENT**

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# FREEWAY MANAGEMENT

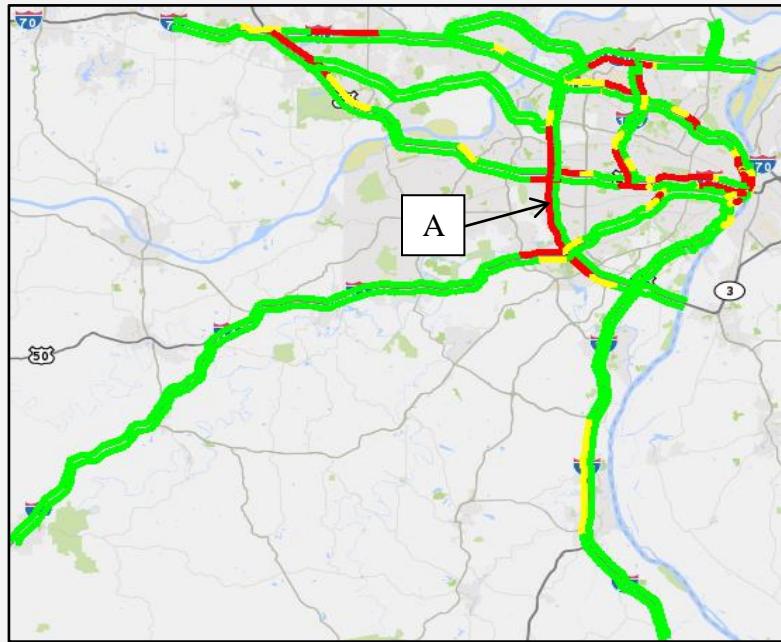
## PM PEAK PERIOD MOBILITY MARCH 2017

4 pm – 5 pm

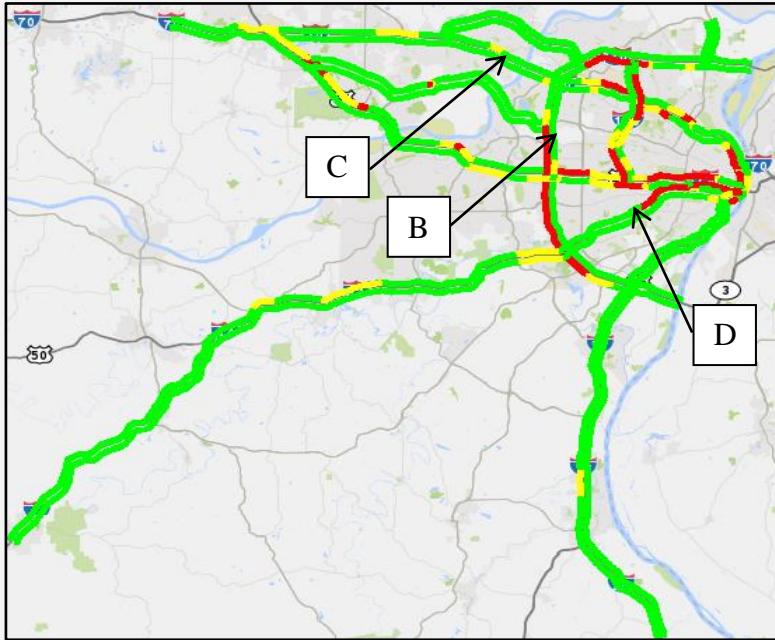


### Highlighted Heat Map Locations

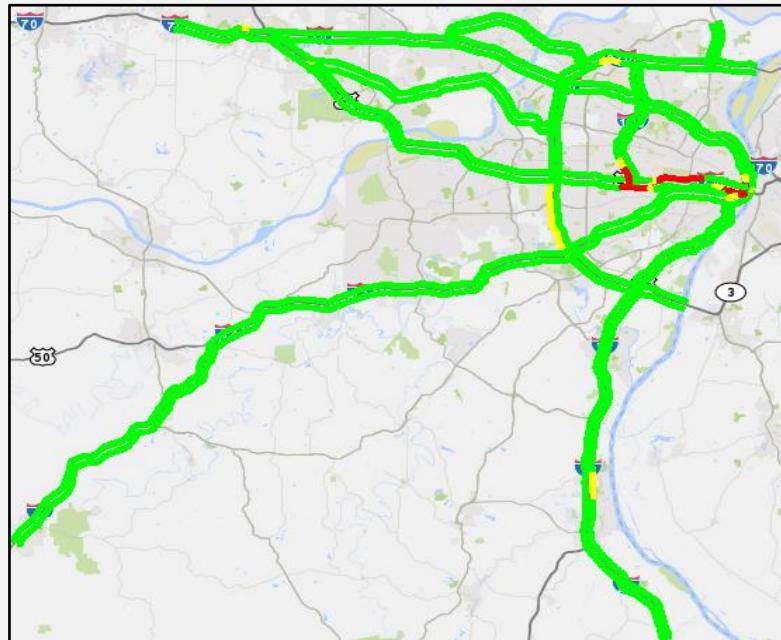
- SB I-270 from Dorsett to I-55/I-255
- NB I-270 from I-64/US-40/US-61 to I-170
- WB I-70 from I-170 to Route 370
- WB I-44 from I-55 to Route 141



5 pm – 6 pm



6 pm – 7 pm

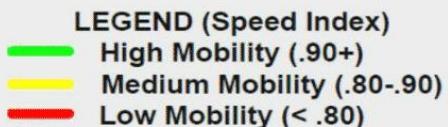




# FREEWAY MANAGEMENT

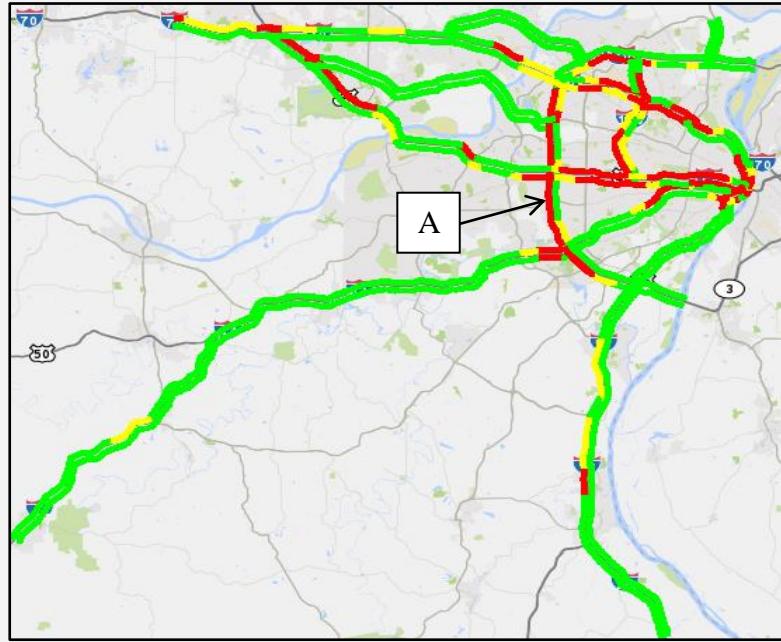
## PM PEAK PERIOD MOBILITY APRIL 2017

4 pm – 5 pm

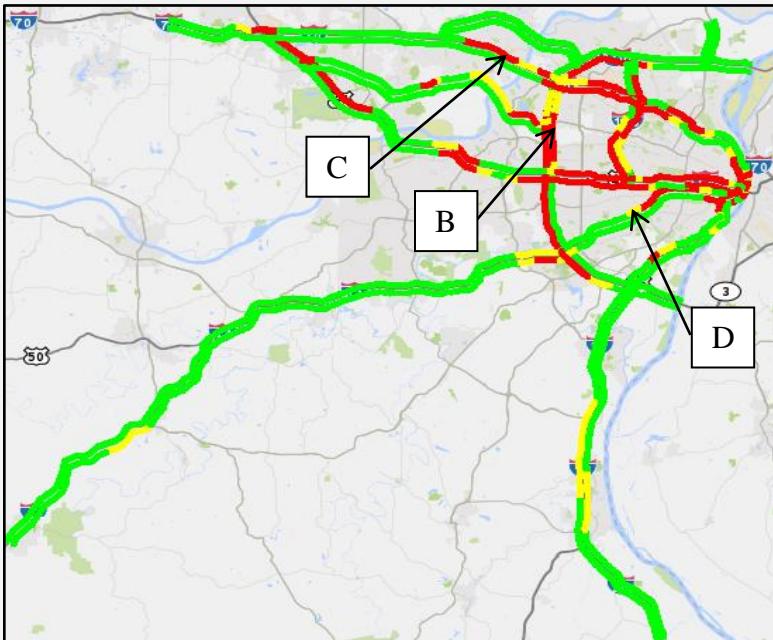


### Highlighted Heat Map Locations

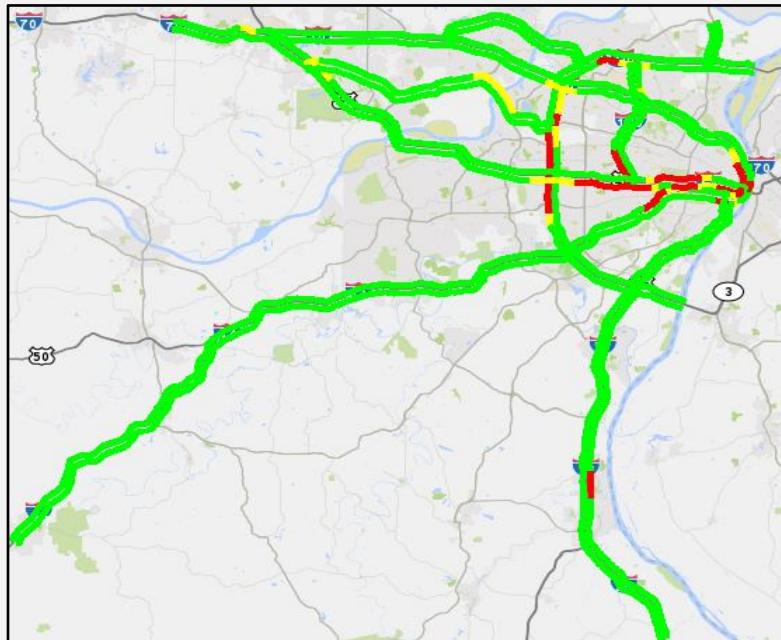
- SB I-270 from Dorsett to I-55/I-255
- NB I-270 from I-64/US-40/US-61 to I-170
- WB I-70 from I-170 to Route 370
- WB I-44 from I-55 to Route 141



5 pm – 6 pm



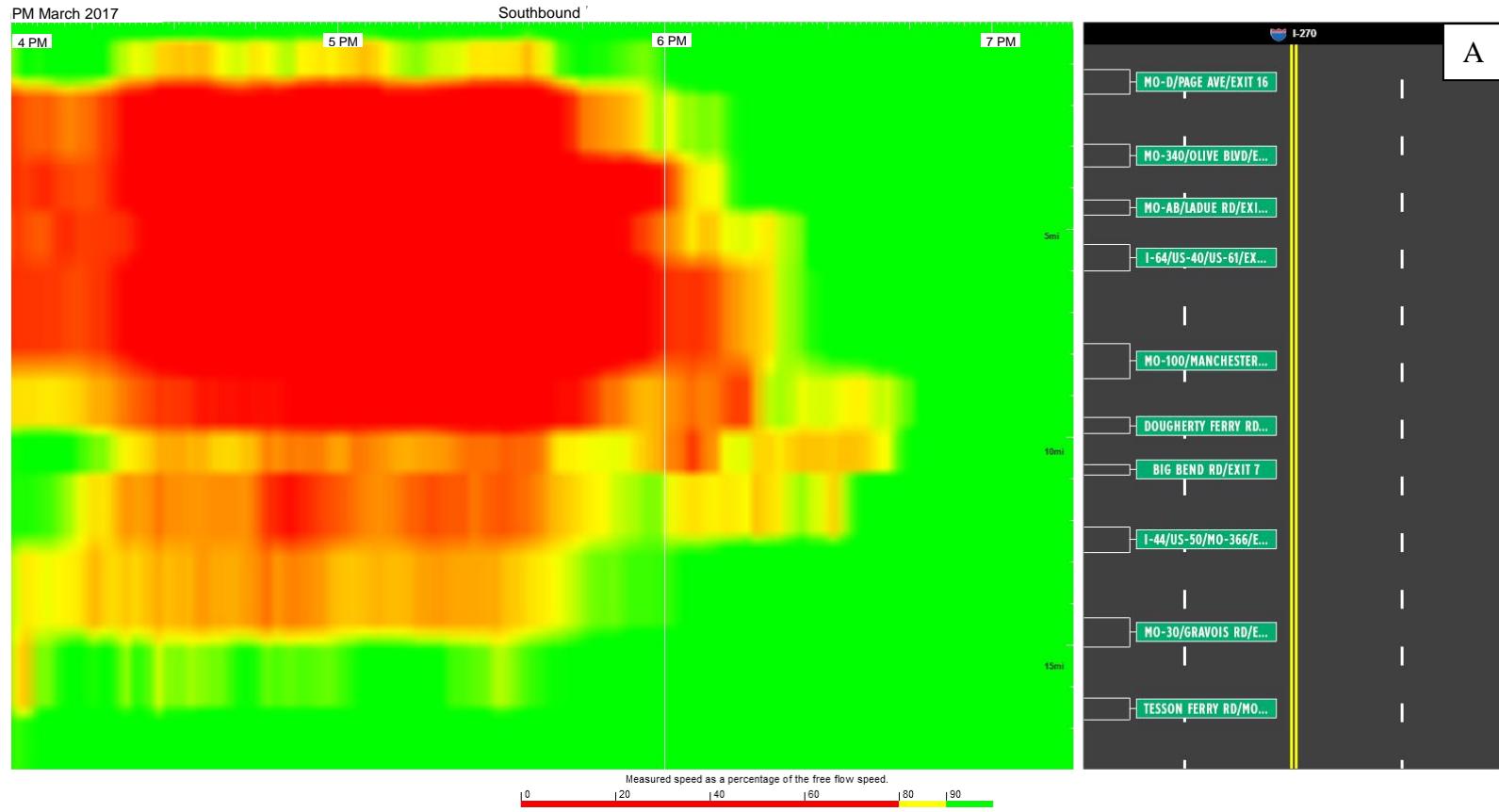
6 pm – 7 pm



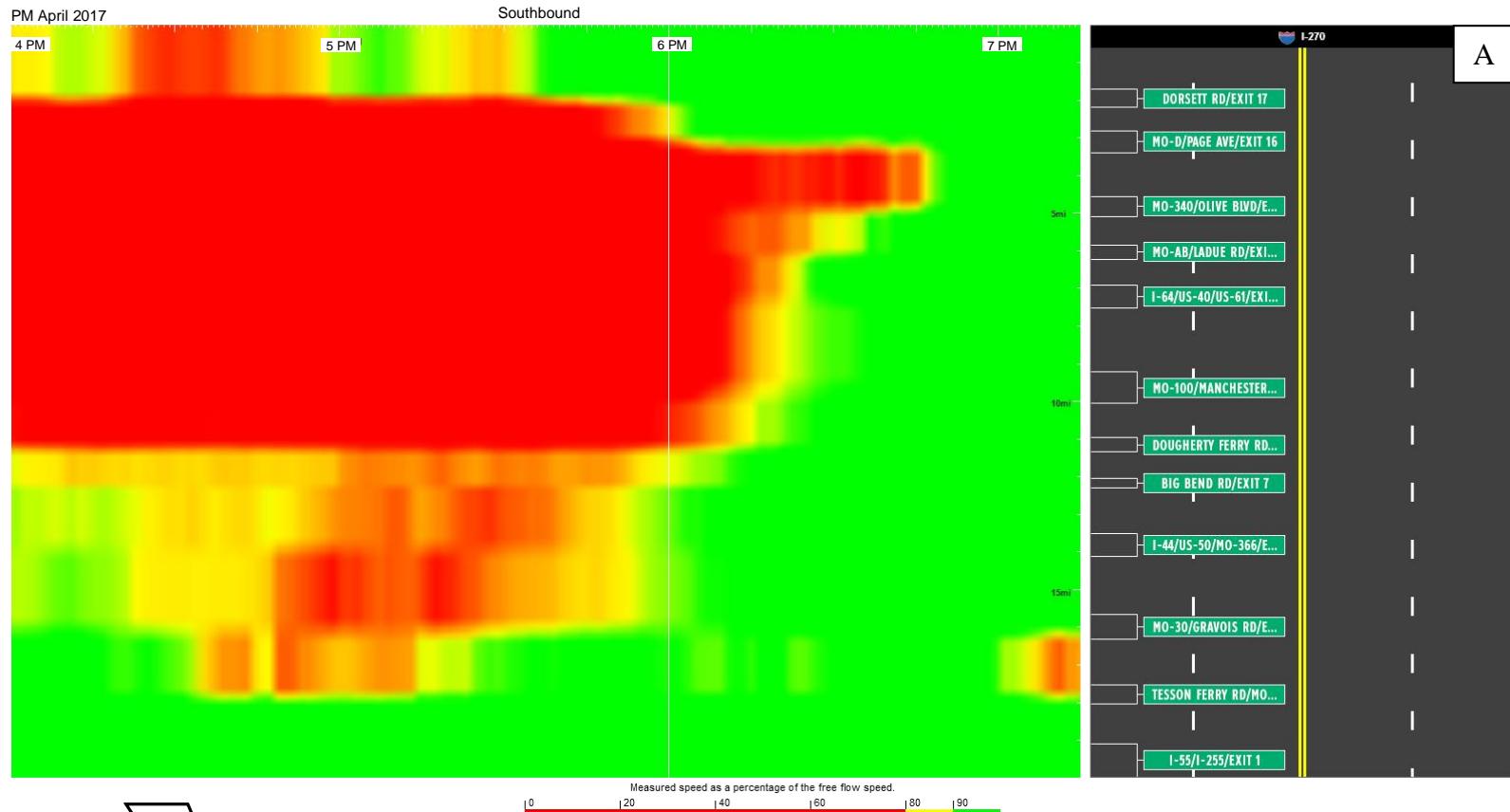


# FREEWAY MANAGEMENT

Congestion on I-270 Southbound between Dorsett Rd and I-55/I-255 for March 2017 (every weekday)



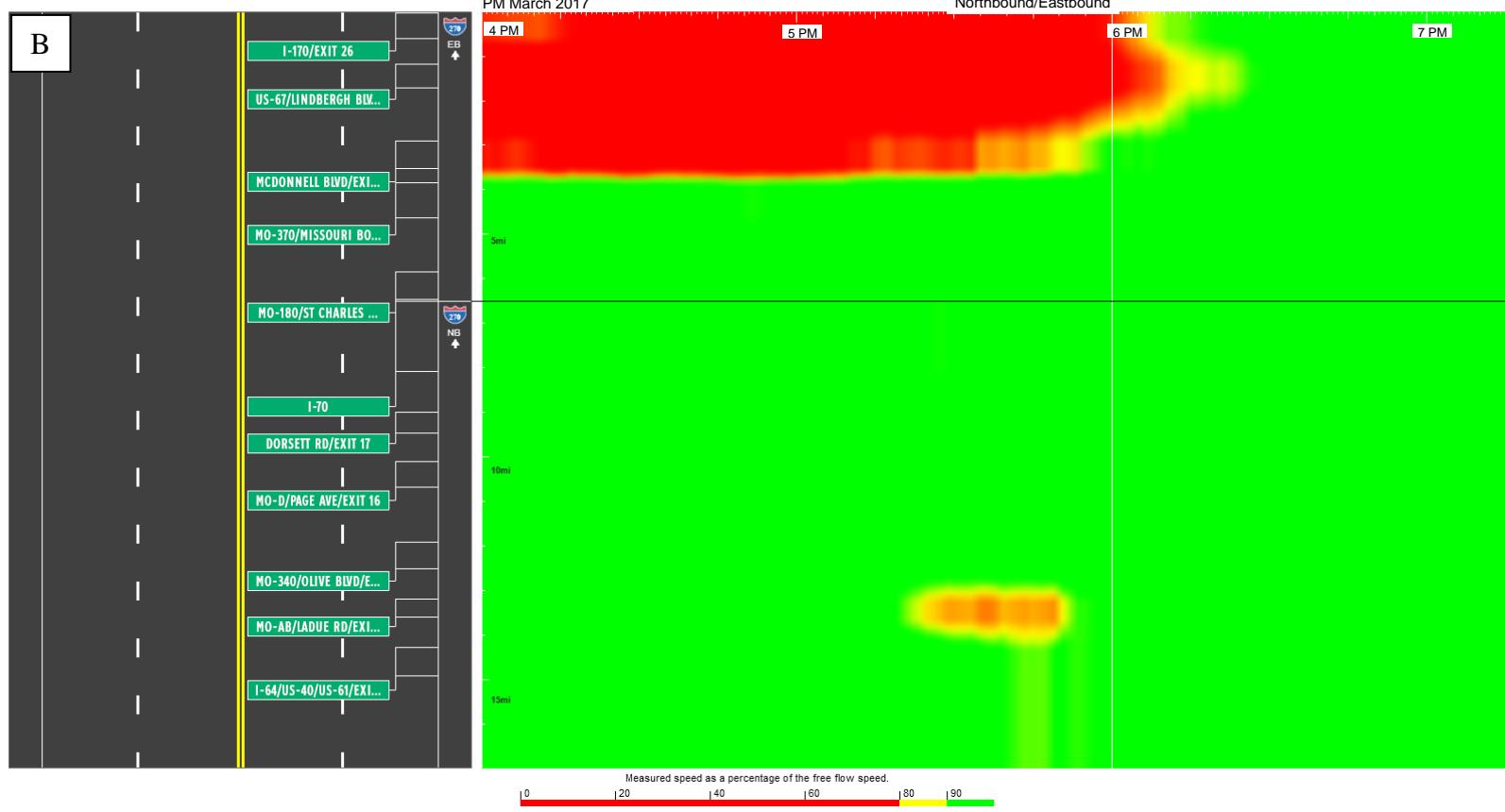
Congestion on I-270 Southbound between Dorsett Rd and I-55/I-255 for April 2017 (every weekday)



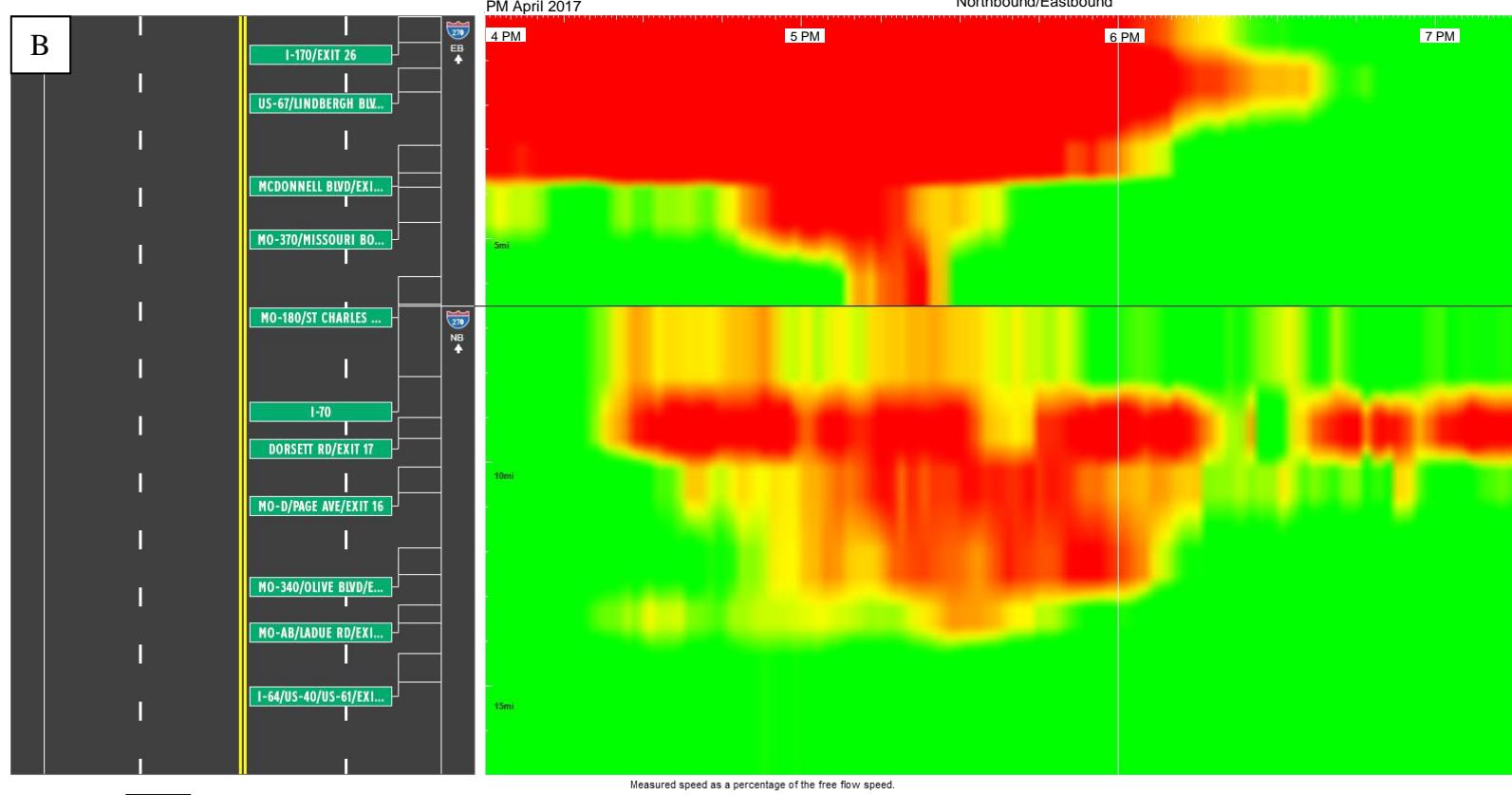


# FREEWAY MANAGEMENT

Congestion on I-270 Northbound/Eastbound between I-64/US-40/US-61 and I-170 for March 2017 (every weekday)



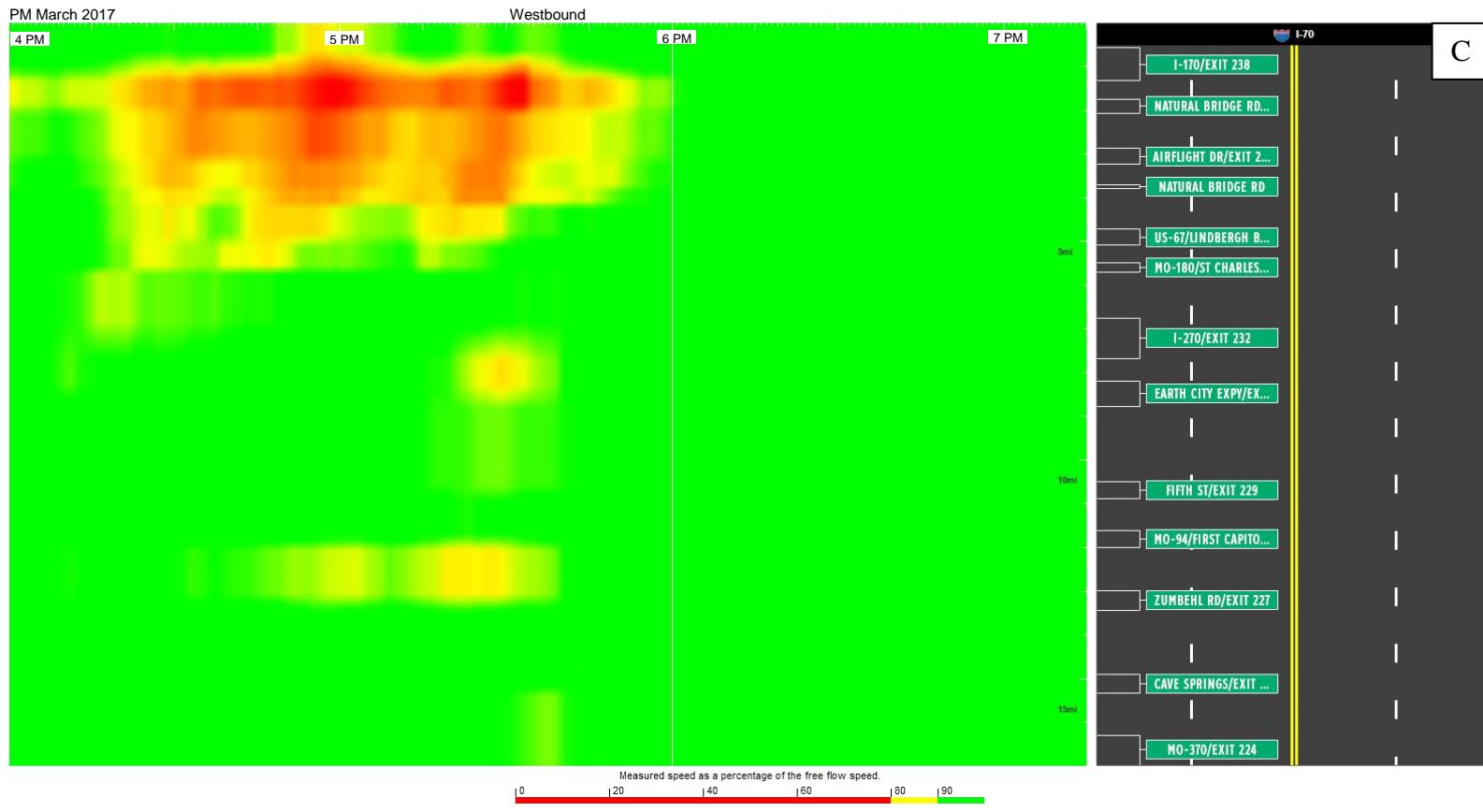
Congestion on I-270 Northbound/Eastbound between I-64/US-40/US-61 and I-170 for April 2017 (every weekday)



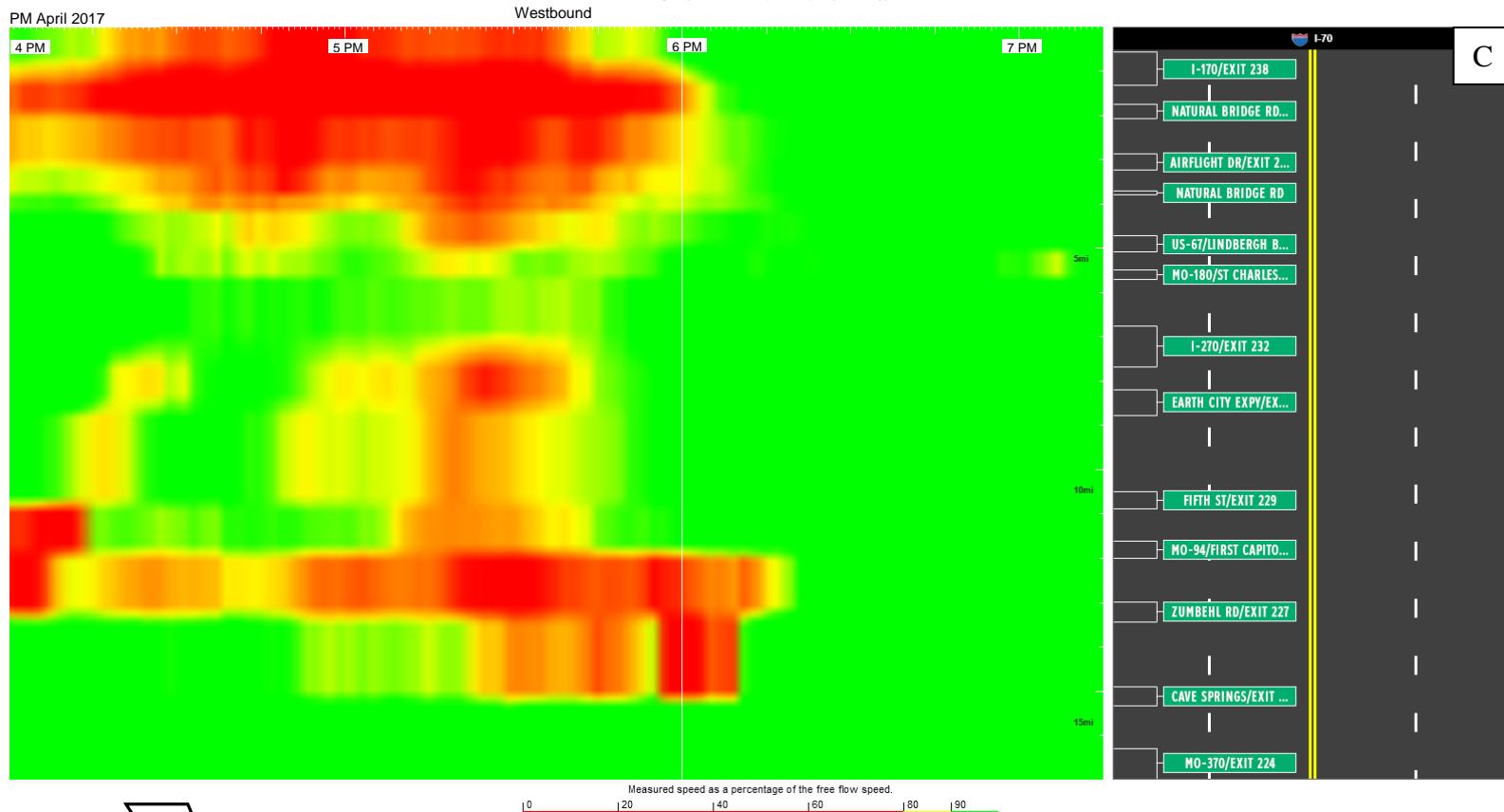


# FREEWAY MANAGEMENT

Congestion on I-70 Westbound between I-170 and Route 370 for March 2017 (every weekday)



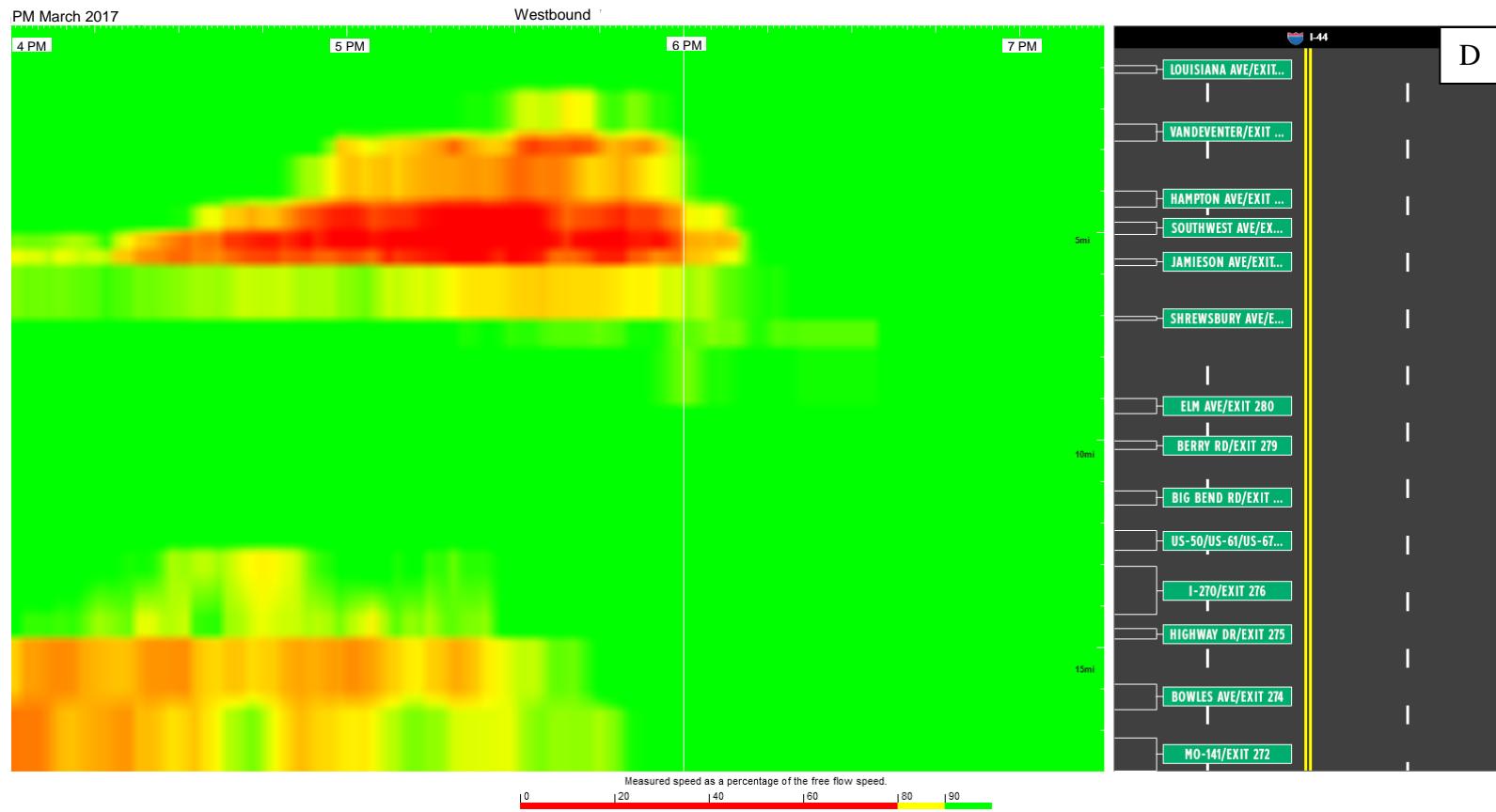
Congestion on I-70 Westbound between I-170 and Route 370 for April 2017 (every weekday)



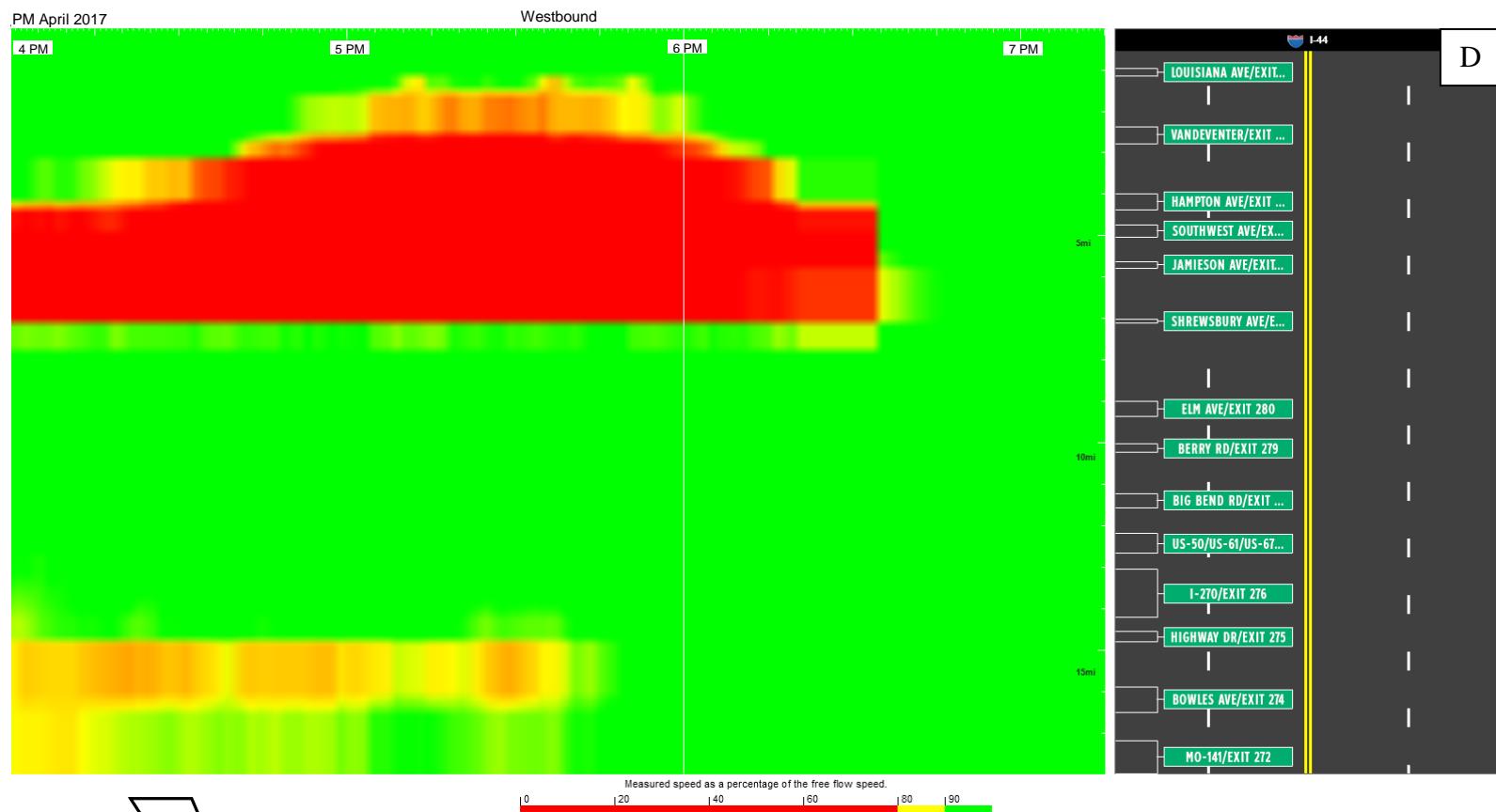


# FREEWAY MANAGEMENT

Congestion on I-44 Westbound between I-55 and Route 141 for March 2017 (every weekday)

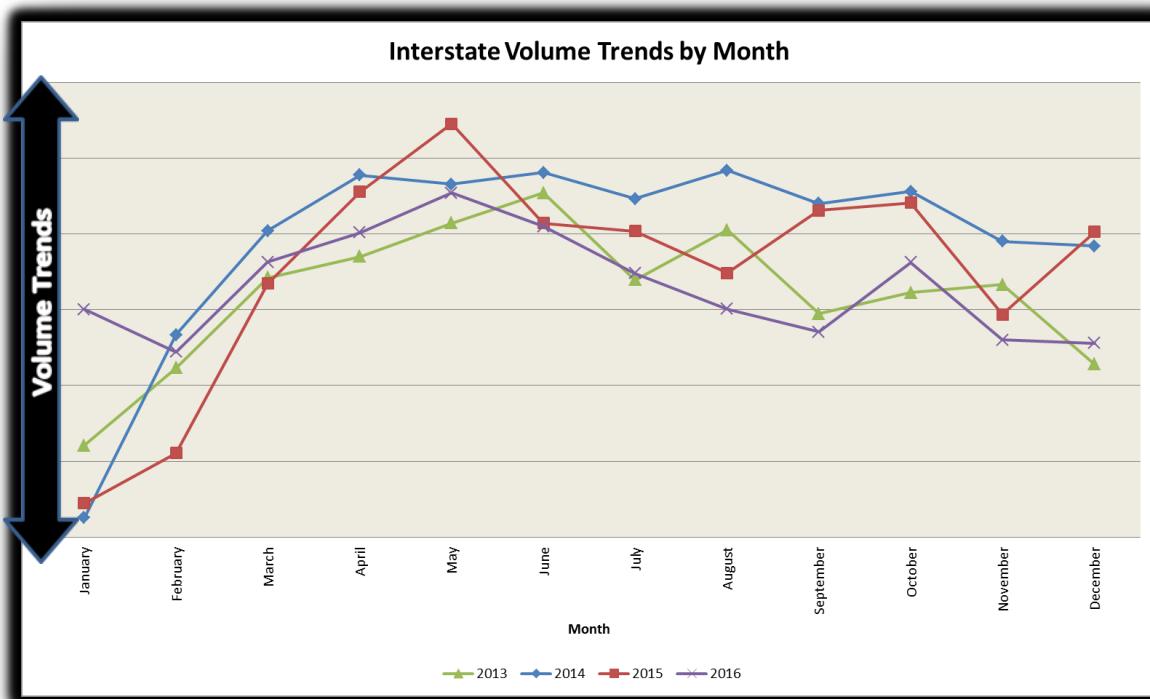
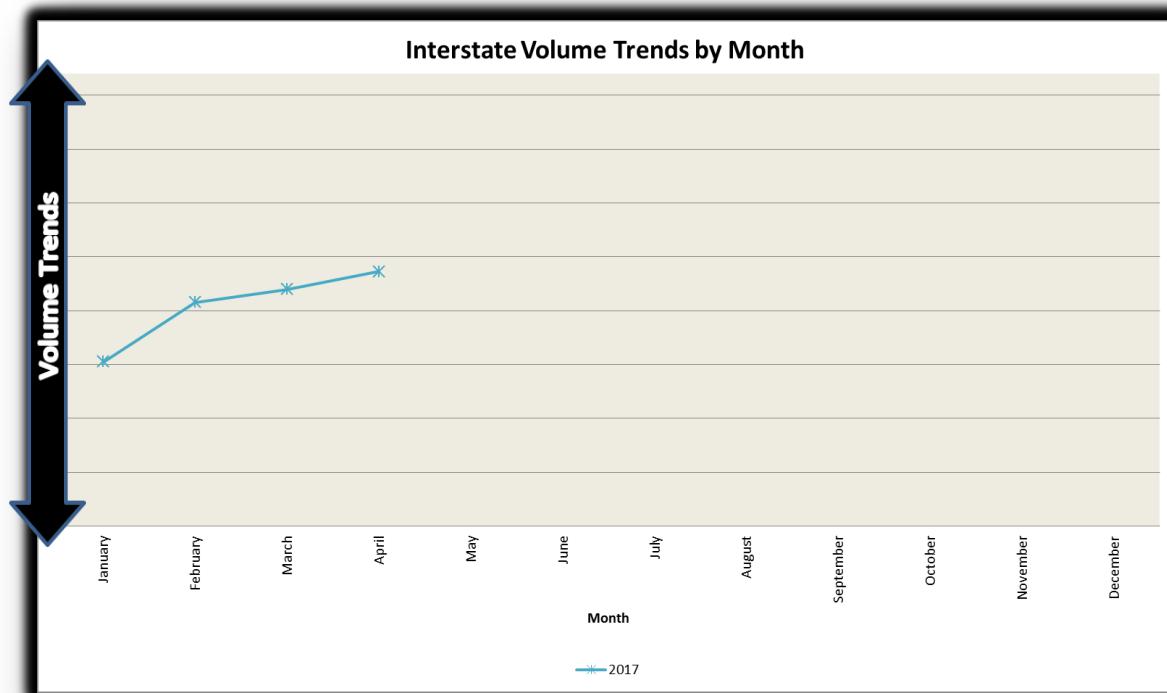


Congestion on I-44 Westbound between I-55 and Route 141 for April 2017 (every weekday)





# FREEWAY MANAGEMENT

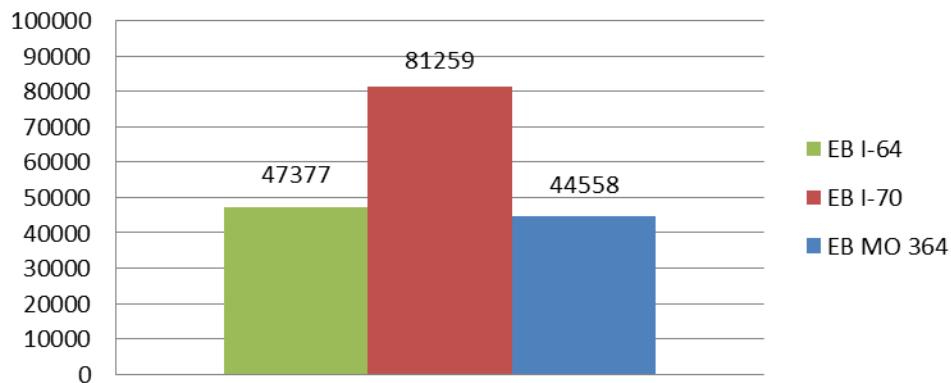


NEW for 2017! The focus area for calculating the average 24 hour volumes was revisited to include all SL District Urban Freeways including Route 364 from I-64 to I-270, Route 367 from I-270 to Route 67, and Route 370 from I-70 to I-270. These freeways are now included in this calculation while the loss of probe data sensors will cause some routes to be excluded. 2017 volumes will be reported for trending purpose only as actual volumes are not comparable to previous years.



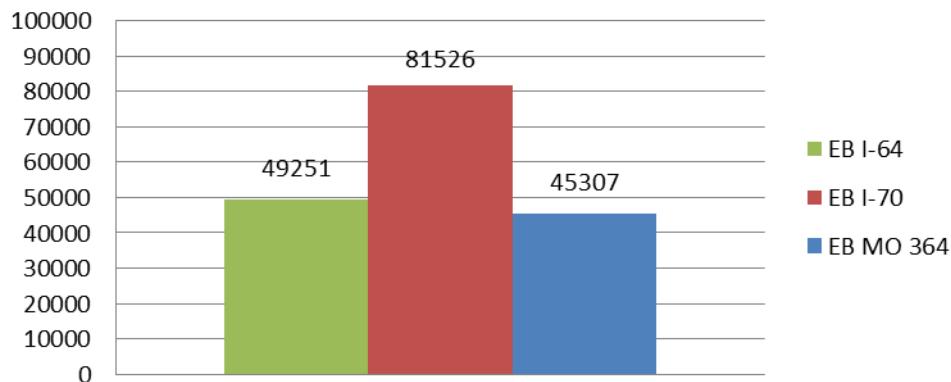
## March 2017 EB MO River Crossings

**Total = 174,449**



## April 2017 EB MO River Crossings

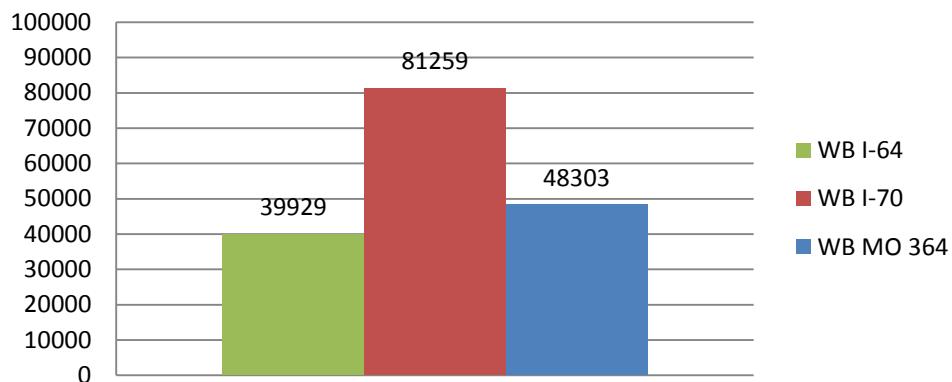
**Total = 180,330**





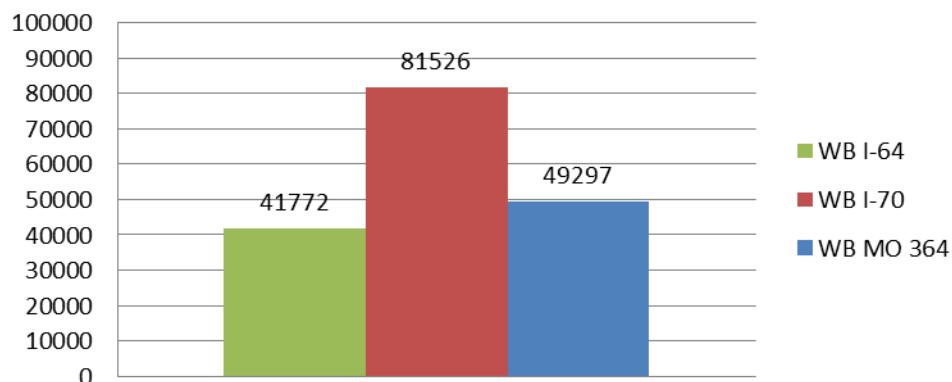
## March 2017 WB MO River Crossings

**Total = 169,491**



## April 2017 WB MO River Crossings

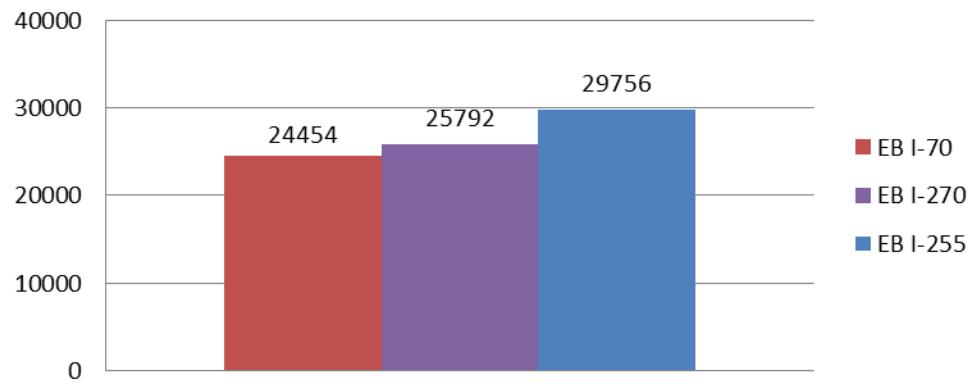
**Total = 172,594**



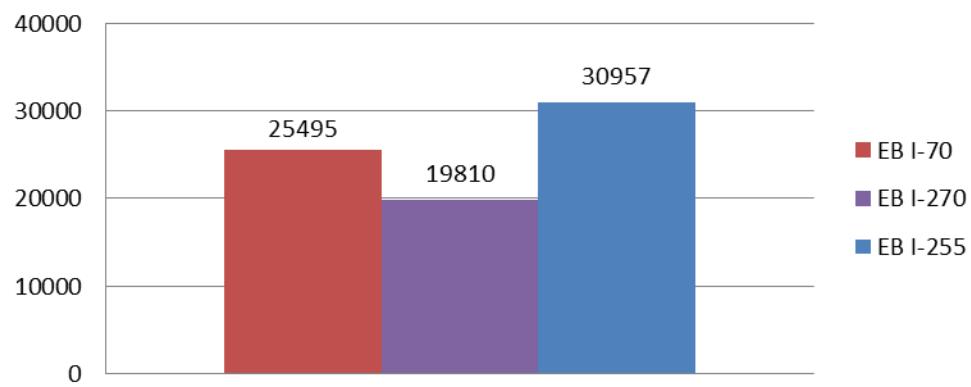


# FREEWAY MANAGEMENT

## March 2017 EB MS River Crossings Total = 80,002



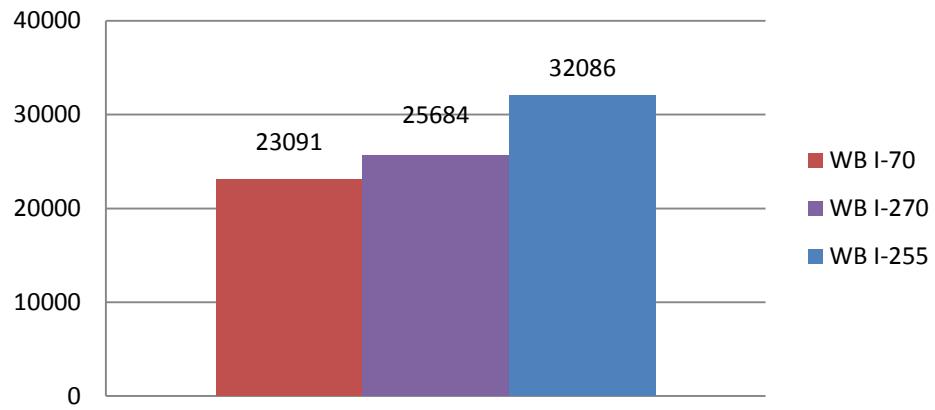
## April 2017 EB MS River Crossings Total = 76,262



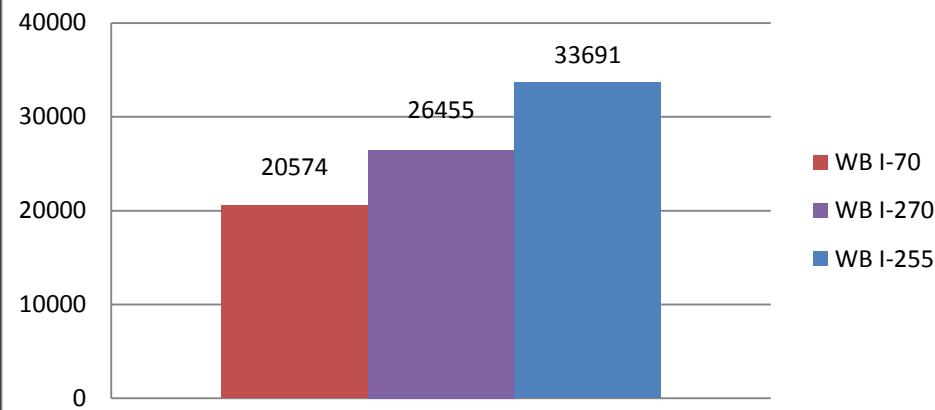


# FREEWAY MANAGEMENT

## March 2017 WB MS River Crossings Total = 80,861



## April 2017 WB MS River Crossings Total = 80,719





# ARTERIAL MANAGEMENT

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**No arterial data available.**

## Work Zones

Whenever additional travel time is reported, this additional time shall be evaluated using this chart and adequate mitigation measures should begin within the parameters of this chart. TMC and field personnel are partners in the mitigation of traffic and notification of additional travel times should trigger the appropriate response from both parties.

Chart is designed to be an additional travel time reference to establish parameters for gauging the travel impact through work zones and to provide guidance for taking mitigation actions. Travel times can be collected or reported via Blue Toad technology, field personnel, call reports, ITS, TMC cameras, etc.

Major and Moderate impacts trigger an IAR (Immediate Action Required) event. IAR means work zone user and TMC partner together to take immediate actions to reduce or eliminate distress. During an IAR event mitigation procedures can range from increased driver notification up to and including removal of work zone. Additional mitigation procedures may require involvement of administration through use of the work zone resolution ladder.

Level of Impact	Additional Travel Time Expected	Mitigation Actions
<p><b>Major (Red) IAR Event</b></p> <p>SEVERE DISTRESS PRESENT</p> <p><b>Return of roadway to free flow traffic is Priority #1</b></p>	<p>15 minutes or above</p> <p>TMC and field personnel take all steps possible up to and including removal of lane closure to achieve free flow threshold</p>	<p><b>Immediate Action Required</b></p> <p>Supervisory mitigation assistance is required using the St. Louis District Work Zone Resolution Ladder as a tool to restore free flow traffic threshold</p>
<p><b>Moderate (Yellow) IAR Event</b></p> <p>CAUTIONARY STAGE:</p> <p><b>Action required by Field/ TMC to prevent escalation to a major event</b></p>	<p>10 – 14 minutes</p> <p>TMC increases driver messaging. Field begins efforts to restore free flow traffic</p>	<p>TMC and field shall reach a consensus on mitigation success within 15 minutes or less. If a consensus cannot be reached, mitigation should be scaled upwards in accordance with the St. Louis District Work Zone Resolution Ladder</p>



## Incident Levels

## Major Impact Traffic Incident – Road closure > 2 hours



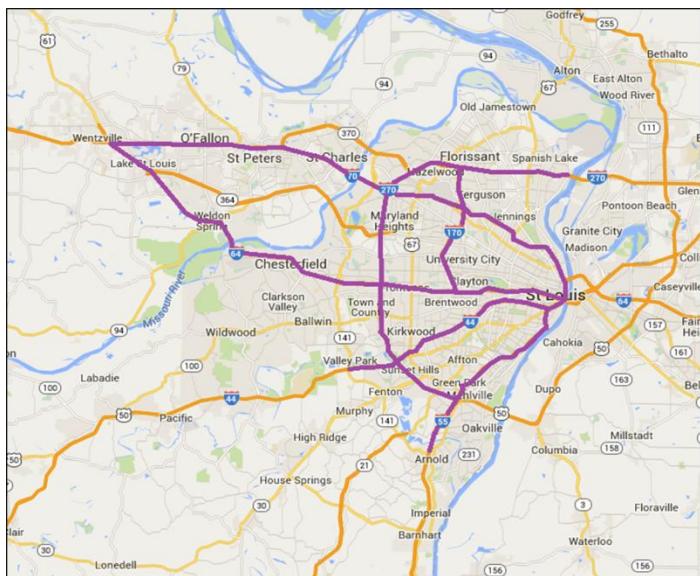
Major traffic incidents are typically traffic incidents involving hazardous materials, fatal traffic crashes involving numerous vehicles, and other natural or man-made disasters. These traffic incidents typically involve closing all or part of a roadway facility for a period exceeding 2 hours.

## **Moderate Impact Traffic Incident – Blocked travel lanes/closure 30 min – 2 hours**

Moderate traffic impact incidents typically affect travel lanes for a time period of 30 minutes to 2 hours, and usually require traffic control on the scene to divert road users past the blockage. Full roadway closures might be needed for short periods during traffic incident clearance to allow traffic incident responders to accomplish their tasks.

## **Minor Impact Traffic Incident – Lane closures < 30 minutes**

Minor traffic incidents are typically disabled vehicles and minor crashes that result in lane closures of less than 30 minutes. On-scene responders are typically law enforcement and towing companies, and occasionally highway agency service patrol vehicles.



**NEW for 2017!** The focus area for calculating the average 24 hour volumes was revisited to include all SL District Urban Freeways including Route 364 from I-64 to I-270, Route 367 from I-270 to Route 67, and Route 370 from I-70 to I-270. Starting in 2017, these freeways will be included in this calculation while 2013-2016 will be based on the original urban interstate calculation.

## Definitions

**ACTRA** – Traffic signal management software program

**Alert** – Email message sent regarding an incident or event on the roadway

**Arterial** – Missouri State Highway Numbered Routes, not fully access controlled

**Arterial Device** – ITS equipment located along MoDOT arterials

**Defined Sensor** – A single sensor with an individual ID focused on a particular roadway; multiple defined sensors may be located at one physical sensor location

**DMS** – Dynamic Message Signs along highway displaying incident and travel time information

**DNR** – Department of Natural Resources

**Driver messaging** – Messages placed on DMS boards to alert drivers of incidents ahead of their direction of travel

**EOC** – Emergency Operations Center operated by MoDOT in Jefferson City

**EMS** – Emergency Medical Services

**ER** – MoDOT's Emergency Response units that provide emergency assistance, incident management and traffic control to mitigate incidents and restore free flow traffic within the St. Louis region

**Freeway Device** – ITS device located along a MoDOT freeway, such as interstates and other fully access controlled highways

**Gatewayguide.com** – Gateway Guide's website for local St. Louis area traffic information

**GGL** – Gateway Green Light is the St. Charles County regional integrated corridor management for a cooperative multi-jurisdictional effort to better manage and coordinate travel on the interstates (I-70, I-64), state routes (MO 94, MO 364, MO 370, US 61) and local arterials through the installation of Intelligent Transportation Systems (ITS) in Cottleville, Dardenne Prairie, Lake St. Louis, O'Fallon, St. Charles, St. Peters, and Wentzville.

**GuidePost** – Area of report highlighting important mobility topics for the month

**IDOT** – Illinois Department of Transportation

**KC Scout** – Gateway Guide's counterpart for the greater Kansas City Metropolitan area, a collaboration involving both MoDOT and the Kansas DOT

**Mobility** – Ease of movement over roadway, through system, and or work zone

**MRB** – Mississippi River Bridge under construction north of downtown St. Louis

**MSHP** – Missouri State Highway Patrol

**Observed Work zone** – Work zone tracked by traffic cameras at the TMC



## DATA KEY

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**Peak Average** – Daily speed sensor readings over an entire weekday average commute period averaged for an entire month

**PSB** – Poplar Street Bridge

**Regional Mobility Overview** – Map depicting congestion areas based on speed index ratings derived from speed sensor readings

**SL** – Designation for the St. Louis District

**Speed Index** – a ratio of the speed at which vehicles travel during a period to the speed at free-flow conditions

**Stats to Watch** – Area of report highlighting interesting trends for the report month, or data to be closely followed

**STLtraffic** – Email group consisting of Gateway Guide personnel and Gateway Guide's media partners, messages sent to the group are also posted on Twitter

**TMC** – Traffic Management Center (also referred to as Gateway Guide)

**TMC Alert** – Email alert sent to an internal group of Gateway Guide personnel

**TMS** – Traveler Map System is MoDOT's internal software for entering work zones and road conditions to populate the Traveler Information Map at [www.traveler.modot.org/map](http://www.traveler.modot.org/map)

**Travel Time Index** – A ratio of the actual time to travel a corridor compared to travel time at posted speed limit without stops used

**User Delay Costs** – Puts a dollar amount on how much a road's performance impacts its users. Combines probe speed data with volume data provided by the Texas Transportation Institute to estimate the cost of delay experienced by drivers as a result of congestion. Vehicle costs used are Passenger Vehicle = \$17.67 and Commercial Vehicle = \$68.09.

**Visibility** – Concerning placement of traffic signs, signals, devices, barricades and warning lights for safety within work zone or construction area to help motorist and workers move within a work zone safely; Clearly visible and legible, distinguishable to approaching traffic during day and night, aligned with road user's line of vision, and positioned as to not obstruct other applicable traffic control devices. Must meet MUTCD standards for condition and must be covered, turned or properly stowed when not in use.

**Zoning In** – section of report highlighting important construction topics for the report month

## I-70 Mile Markers

ST. CHARLES COUNTY		ST. CHARLES COUNTY	
5TH ST SOUTH (ST. CHARLES)	229A	229A	5TH ST SOUTH (ST. CHARLES)
5TH ST NORTH (ST. CHARLES)	229B	229B	5TH ST NORTH (ST. CHARLES)
ST. LOUIS COUNTY		ST. LOUIS COUNTY	
BLANCHETTE BRIDGE	230	230	BLANCHETTE BRIDGE
EARTH CITY EXPRESSWAY SOUTH	231A	231A	EARTH CITY EXPRESSWAY SOUTH
EARTH CITY EXPRESSWAY NORTH	231B	231B	EARTH CITY EXPRESSWAY NORTH
I-270	232	232	I-270
MCKELVEY RD OVERPASS (BRIDGETON)	233	233	MCKELVEY RD OVERPASS (BRIDGETON)
RTE 180/ST. CHARLES ROCK RD (BRIDGETON)	234	234	RTE 180/ST. CHARLES ROCK RD (BRIDGETON)
US 67 SOUTH (BRIDGETON)	235A	235A	US 67 SOUTH (BRIDGETON)
US 67 NORTH (BRIDGETON)	235B	235B	US 67 NORTH (BRIDGETON)
CYPRESS RD (BRIDGETON)	235C	235C	CYPRESS RD (BRIDGETON)
AIRFLIGHT (ST. ANN)	236	236	AIRFLIGHT (ST. ANN)
MCDONNELL OVERPASS (BERKELEY)	237	237	MCDONNELL OVERPASS (BERKELEY)
LAMBERT AIRPORT (BERKELEY)	238A	238A	LAMBERT AIRPORT (BERKELEY)
I-170 NORTH (BERKELEY)	238B	238B	I-170 NORTH (BERKELEY)
I-170 SOUTH (BERKELEY)	238C	238C	I-170 SOUTH (BERKELEY)
NORTH HANLEY (BERKELEY)	239	239	NORTH HANLEY (BERKELEY)
RTE N/FLORISSANT RD (COOL VALLEY)	240A	240A	RTE N/FLORISSANT RD (COOL VALLEY)
BERMUDA DR (NORMANDY)	240B	240B	BERMUDA DR (NORMANDY)
RTE U/LUCAS AND HUNT RD	241B	241B	RTE U/LUCAS AND HUNT RD
JENNINGS STATION RD (PINE LAWN)	242C	242C	JENNINGS STATION RD (PINE LAWN)
ST. LOUIS CITY		ST. LOUIS CITY	
GOODFELLOW (ST. LOUIS)	243A	243A	GOODFELLOW (ST. LOUIS)
RIVERVIEW/BIRCHER (ST. LOUIS)	243B	243B	RIVERVIEW/BIRCHER (ST. LOUIS)
UNION (ST. LOUIS)	244A	244A	UNION (ST. LOUIS)
KINGSHIGHWAY (ST. LOUIS)	244B	244B	KINGSHIGHWAY (ST. LOUIS)
SHREVE (ST. LOUIS)	245A	245A	SHREVE (ST. LOUIS)
WEST FLORISSANT AVE (ST LOUIS)	245B	245B	WEST FLORISSANT AVE (ST LOUIS)
NORTH BROADWAY (ST. LOUIS)	246A	246A	NORTH BROADWAY (ST. LOUIS)
ADELAIDE (ST LOUIS)	246B	246B	ADELAIDE (ST LOUIS)
GRAND (ST. LOUIS)	247	247	GRAND (ST. LOUIS)
SALISBURY (ST LOUIS)	248A	248A	SALISBURY (ST LOUIS)
BRANCH (ST LOUIS)	248B	248B	BRANCH (ST LOUIS)
MADISON (ST LOUIS)	249A	249A	MADISON (ST LOUIS)
PINE ST OVERPASS (ST LOUIS)	250	250	PINE ST OVERPASS (ST LOUIS)
CHESTNUT ST OVERPASS (ST LOUIS)	250	250	CHESTNUT ST OVERPASS (ST LOUIS)
MARKET ST OVERPASS (ST. LOUIS)	250	250	MARKET ST OVERPASS (ST. LOUIS)
WALNUT ST OVERPASS (ST LOUIS)	250	250	WALNUT ST OVERPASS (ST LOUIS)

I-70 DISTRICT 6 EASTBOUND

**I-70 St. Charles County Mile Markers**

RTE A (WENTZVILLE)	212	I-70 DISTRICT 6 EASTBOUND	212	RTE A (WENTZVILLE)
LAKE ST. LOUIS BLVD (LAKE ST. LOUIS)	214		214	LAKE ST. LOUIS BLVD (LAKE ST. LOUIS)
BRYAN RD (O'FALLON)	216		216	BRYAN RD (O'FALLON)
RTE K/RTE M (O'FALLON)	217		217	RTE K/RTE M (O'FALLON)
T.R. HUGHES BLVD (O'FALLON)	218		218	T.R. HUGHES BLVD (O'FALLON)
RTE 79 (ST. PETERS/O'FALLON)	220		220	RTE 79 (ST. PETERS/O'FALLON)
RTE C/MID RIVERS MALL DR (ST. PETERS)	222		222	RTE C/MID RIVERS MALL DR (ST. PETERS)
SPENCER RD OVERPASS (ST. PETERS)	223		223	SPENCER RD OVERPASS (ST. PETERS)
RTE 370 (ST. PETERS)	224		224	RTE 370 (ST. PETERS)
CAVE SPRINGS (ST. CHARLES)	225		225	CAVE SPRINGS (ST. CHARLES)
ZUMBEHL RD (ST. CHARLES)	227		227	ZUMBEHL RD (ST. CHARLES)
HAWK'S NEST OVERPASS (ST. CHARLES)	227		227	HAWK'S NEST OVERPASS (ST. CHARLES)
RTE 94 (ST. CHARLES)	228		228	RTE 94 (ST. CHARLES)
5TH ST SOUTH (ST. CHARLES)	229A		229A	5TH ST SOUTH (ST. CHARLES)
5TH ST NORTH (ST. CHARLES)	229B		229B	5TH ST NORTH (ST. CHARLES)

**I-270 Mile Markers**

3	KOCH RD	<b>I-270 DISTRICT 6 COUNTER CLOCKWISE FROM RIVERVIEW DR. TO I-55</b> <b>I-255 EASTBOUND</b> <b>I-255 WESTBOUND</b> 	KOCH RD	3
2	SR 231 (TELEGRAPH RD)		SR 231 (TELEGRAPH RD)	2
1C	US61-67		US61-67	1B
1B	I-55 NORTH		I-55 NORTH	1B
1	I-55 SOUTH		I-55 SOUTH	1A
2	SR 21 (TESSON FERRY RD.)		SR 21 (TESSON FERRY RD.)	2
3	SR 30 (GRAVOIS RD.)		SR 30 (GRAVOIS RD.)	3
5	I-44 EAST/SR 366 (WATSON RD.)		I-44 EAST	5
5	I-44 WEST		I-44 WEST	5
			BIG BEND RD.	7
8	DOUGHERTY FERRY RD.		DOUGHERTY FERRY RD.	8
10	SR 100 (MANCHESTER RD.)		SR 100 (MANCHESTER RD.)	10
12	I-64 EAST/WEST/US 40-61 NORTH/SOUTH		I-64 EAST/WEST/US 40-61 NORTH/SOUTH	12 A/B
13	SR AB (LADUE RD)		SR AB (LADUE RD)	13
14	SR 340 (OLIVE BLVD)		SR 340 (OLIVE BLVD)	14
16	SR D (PAGE AVE.) EAST		SR D (PAGE AVE.) EAST	16A
16	SR 364 WEST		SR 364 WEST	16B
17	DORSETT RD		DORSETT RD	17
20	I-70 WEST/EAST		I-70 WEST	20B
			I-70 EAST	20A
20C	SR 180 (ST. CHARLES ROCK RD)		SR 180 (ST. CHARLES ROCK RD)	20C
22	MISSOURI BOTTOM RD/370 WEST		SR 370 WEST	22D
23	MCDONNELL BLVD		MCDONNELL BLVD	23
25A	US 67 SOUTH		US 67 NORTH	25A
25B	US 67 NORTH		US 67 SOUTH	25B
26	HANLEY/GRAHAM RD.		I-170 SOUTH (EXIT LEFT)	26A
26	I-170 SOUTH		HANLEY/GRAHAM	26B
27	NEW FLORISSANT RD		NEW FLORISSANT RD	27
28	WASHINGTON/ELIZABETH RD.		ELIZABETH/WASHINGTON	28
29	WEST FLORISSANT RD		WEST FLORISSANT RD	29
30	SR AC HALLS FERRY RD		SR AC NEW HALLS FERRY RD	30
			NEW HALLS FERRY RD.	30A
31A	SR 367 SOUTH		SR 367 SOUTH	31A
31B	SR 367 NORTH		SR 367 NORTH	31B
32	BELLEFONTAINE RD		BELLEFONTAINE RD	32
33	LILAC AVE.		LILAC AVE.	33
34	RIVERVIEW DR.		RIVERVIEW DR.	34



## DATA KEY

## I-64 Mile Markers

I-70 WEST EXIT RIGHT/EAST EXIT LEFT		1
PROSPECT RD	1C	
LAKE ST. LOUIS BLVD	2	
SR N	4	
SR DD/WINGHAVEN	6	
SR K/SR 94	9	
MISSOURI RESEARCH PARK/TECHNOLOGY DR	12	
DANIEL BOONE BRIDGE	13	
CHESTERFIELD AIRPORT RD	14	
BOONE'S CROSSING	17	
CHESTERFIELD PKWY	19A	
SR 340 (OLIVE/CLARKSON)	19B	
TIMBERLAKE MANOR PKWY	21	
SR 141	22	
MASON RD	23	
I-270 SOUTH	25A	
I-270 NORTH	25B	
SR JJ (BALLAS RD)	26	
SPOEDE RD	27	
US 61-67	28A	
MCKNIGHT RD	30	
BRENTWOOD/HANLEY RD	31B	
I-170 NORTH	31A	
BELLEVUE AVE	33B	
BIG BEND	33A	
MCCAUSLAND	33C	
ST. LOUIS CITY		
HAMPTON AVE/OAKLAND AVE	34B	
KINGSHIGHWAY	36A	
VANDEVENTER AVE	36C	
MARKET ST/BERNARD ST	37A	
GRAND AVE	37B	
JEFFERSON AVE	38A	
CHESTNUT AT 20TH ST	38B	
14TH ST	39B	
11TH ST EXIT LEFT	39C	
BROADWAY/7TH ST (LAST MISSOURI EXIT)	40B	

I-64 DISTRICT 6 WESTBOUND		1A	I-70 WEST
I-64 DISTRICT 6 EASTBOUND		1B	I-70 EAST
		1C	PROSPECT RD
		2	LAKE ST. LOUIS BLVD
		4	MO N
		6	MO DD/Winghaven
		9	MO K
		10	MO 94
		11	RESEARCH PARK CRL
		13	DANIEL BOONE BRIDGE
		14	SPIRIT OF ST LOUIS BLVD
		16	LONG RD
		17	BOONE'S CROSSING
		19A	CHESTERFIELD PKWY
		19B	MO 340 (OLIVE/CLARKSON)
		20	CHESTERFIELD PKWY
		21	TIMBERLAKE MANOR PKWY
		22	MO 141 (WOODS MILL RD)
		23	MARYVILLE CENTRE DR
		24	MASON RD
		25A	I-270 SOUTH
		25B	I-270 NORTH
		26	MO JJ (BALLAS RD)
		27	SPOEDE RD
		28A	US 61-67
		28B	CLAYTON RD
		30	MCKNIGHT RD
		31A	I-170 NORTH
		31B	HANLEY RD/BRENTWOOD BLVD
		33A	BIG BEND BLVD
ST. LOUIS CITY		33C	MCCAUSLAND AVE
		34A	CLAYTON RD/SKINKER BLVD
		34B	HAMPTON AVE
		36A	KINGSHIGHWAY
		36B	BOYLE
		38A	FOREST PARK AVE/GRAND BLVD
		38B	MARKET ST AT 3000 WEST
		39A	MARKET ST AT 21ST
		40A	STADIUM/9TH ST/ TUCKER BLVD
		40C	I-44 WB/I-55 SB/ I-70 WB

**I-55 Mile Markers**

JEFFERSON COUNTY		JEFFERSON COUNTY	
RTE M	185	185	RTE M
MAIN ST(IMPERIAL)	186	186	MAIN ST(IMPERIAL)
RICHARDSON RD (ARNOLD)	190	190	RICHARDSON RD (ARNOLD)
RTE 141 (ARNOLD)	191	191	RTE 141 (ARNOLD)
ST. LOUIS COUNTY		ST. LOUIS COUNTY	
MERAMEC BOTTOM RD	193	193	MERAMEC BOTTOM RD
BUTLER HILL RD	195	195	BUTLER HILL RD
<b>I-255 EAST</b>	196A	196A	<b>I-255 EAST</b>
<b>I-270 NORTH</b>	196B	196B	<b>I-270 NORTH</b>
US67/LINDBERGH	197	197	US67/LINDBERGH
REAVIS BARRACKS RD	199	199	REAVIS BARRACKS RD
UNION RD	200	200	UNION RD
BAYLESS	201A	201A	BAYLESS
WEBER RD	201B	201B	WEBER RD
ST. LOUIS CITY		ST. LOUIS CITY	
GERMANIA (ST. LOUIS)	202B	202B	GERMANIA (ST. LOUIS)
LOUGHBOROUGH AVE (ST. LOUIS)	202C	202C	LOUGHBOROUGH AVE (ST. LOUIS)
BATES (ST. LOUIS)	203	203	BATES (ST. LOUIS)
BROADWAY (ST. LOUIS)	204	204	BROADWAY (ST. LOUIS)
GASCONADE (ST. LOUIS)	205	205	GASCONADE (ST. LOUIS)
ARSENAL (ST. LOUIS)	206C	206C	ARSENAL (ST. LOUIS)
SIDNEY OVERPASS	206	206	SIDNEY OVERPASS
GRAVOIS AVE OVERPASS	207	207	GRAVOIS AVE OVERPASS
<b>I-44 WEST (ST. LOUIS)</b>	207	207	<b>I-44 WEST (ST. LOUIS)</b>
7TH ST/PARK AVE (ST. LOUIS)	208	208	7TH ST/PARK AVE (ST. LOUIS)

**I-55 DISTRICT 6 NORTHBOUND**  
**I-55 DISTRICT 6 SOUTHBOUND**

**I-44 Mile Markers**

FRANKLIN COUNTY		FRANKLIN COUNTY	
PACIFIC	257	257	PACIFIC
ST. LOUIS COUNTY		ST. LOUIS COUNTY	
ALLENTON/SIX FLAGS	261	261	ALLENTON/SIX FLAGS
RTE 109/RTE W	264	264	RTE 109/RTE W
WILLIAMS RD	265		
LEWIS RD	266	266	LEWIS RD
		269	ANTIRE
RTE 141	272	272	RTE 141
BOWLES	274	274	BOWLES
MRAZ	274		
I-270 NORTH	276B	275	SOCCER PARK
I-270 SOUTH	276A	276B	I-270 NORTH
RTE 366/WATSON	277A	276A	I-270 SOUTH
US 67/LINDBERGH	277B	277B	US 67/LINDBERGH
BIG BEND	278	278	BIG BEND
		279	BERRY
ELM	280	280	ELM
LACLEDE STATION	282		
ST. LOUIS CITY		ST. LOUIS CITY	
JAMIESON	284A	283	SHREWSBURY
		284B	ST. LOUIS CITY
HAMPTON	286	284B	ARSENAL
KINGSHIGHWAY	287	285	SOUTHWEST
GRAND AVE	288		
JEFFERSON AVE	289	287	KINGSHIGHWAY
I-55 SOUTH	290A	288	GRAND AVE
18TH ST	290B	289	JEFFERSON AVE
		290C	12TH ST./GRAVOIS

I-44 DISTRICT 6 WESTBOUND

## I-170 Mile Markers

I-64 WEST/US 40-61	1A	I-170 DISTRICT 6 NORTHBBOUND	
I-64 EAST/US 40-61	1B		
BRENTWOOD BLVD	1D		
FOREST PARK PARKWAY	1E		
LADUE RD	1F		
DELMAR	2		
EAST/3B WEST SR 340 (OLIVE BLVD)	3A		
SRD/SR 364 (PAGE AVE)	4		
SR 180 (ST. CHARLES ROCK RD)	5		
SR 115 (NATURAL BRIDGE RD)	6		
I-70 EAST (EXIT LEFT)	7A		
I-70 WEST (EXIT RIGHT)	7B		
SCUDDER	8		
AIRPORT RD	9A		
1C	GALLERIA PARKWAY		
1E	FOREST PARK PARKWAY		
1F	LADUE RD		
2	DELMAR		
3	SR 340 (OLIVE BLVD)		
4	SR D/SR 364 (PAGE AVE)		
5	SR 180 (ST. CHARLES ROCK RD)		
6	SR 115 (NATURAL BRIDGE RD)		
7A	I-70 EAST (EXIT RIGHT)		
7B	I-70 WEST (EXIT LEFT)		
7C	LAMBERT ST. LOUIS AIRPORT		
8	SCUDDEN/N. HANLEY RD		
9A	AIRPORT		
9B	BOEING (EXIT LEFT)		
9C	N. HANLEY RD		
10A	I-270 WEST (EXIT RIGHT)		
10B	I-270 EAST (EXIT LEFT)		

## SR 364 Mile Markers

		SR 364 WESTBOUND	
SR94 EAST/ST. CHARLES	13		
ARENA PKWY/UPPER BOTTOM RD	14		
MARYLAND HEIGHTS EXPRESSWAY	17		
BENNINGTON PL	19		
I-270 SOUTH	22A		
I-270 NORTH	22B		
11B	HARVESTER RD		
12	HERITAGE CROSSING/JUNGS STATION RD		
13	SR 94 EAST/MUEGGE RD		
14	UPPER BOTTOM/ARENA		
17	MARYLAND HEIGHTS EXPRESSWAY		
21	BENNINGTON PL		

## SR 370 Mile Markers

		SR 370 WESTBOUND SR 370 EASTBOUND	1A	I-70 WESTBOUND	
TRUMAN/CAVE SPRINGS RD			1B	I-70 EASTBOUND	
ELM/NEW TOWN BLVD			1C	SPENCER RD	
N 3RD ST/SR 94			2	TRUMAN/CAVE SPRINGS RD	
DISCOVERY BRIDGE ST. CHAS CO/ ST. LOUIS CO			5	ELM/NEW TOWN BLVD	
EARTH CITY EXPRESSWAY			7	N 3RD ST/SR 94	
ST. LOUIS MILLS BLVD			8	DISCOVERY BRIDGE ST. LOUIS CO/ ST. CHAS CO	
MISSOURI BOTTOM RD			9	EARTH CITY EXPRESSWAY	
I-270 WEST BOUND			11	ST. LOUIS MILLS BLVD	
I-270 EAST BOUND					

## SR 21 Mile Markers

		SR 21 NORTHBOUND SR 21 SOUTHBOUND	164.8	RT B	
RT BB			165.4	RT BB	
STADIUM DR UNDERPASS			166.4	STADIUM DR UNDERPASS	
RTE A			167.8	RTE A	
SAND CREEK			169	SAND CREEK	
HAYDEN RD			169.2	HAYDEN RD	
GLADE CHAPEL RD OVERPASS			171.4	GLADE CHAPEL RD OVERPASS	
OLD HWY 21 (GOLDMAN)			172.6	OLD HWY 21 (GOLDMAN)	
KLABLE RD OVERPASS			174.2	KLABLE RD OVERPASS	
SCHENK RD OVERPASS			175.2	SCHENK RD OVERPASS	
HEADS CREEK			176.4	HEADS CREEK	
RT MM			177.7	RT MM	
W. FOUR RIDGE RD OVERPASS			179	W. FOUR RIDGE RD OVERPASS	
OLD HWY 21 (SHADY VALLEY)			180.4	OLD HWY 21 (SHADY VALLEY)	
OLD HWY 21 UNDERPASS			182	OLD HWY 21 UNDERPASS	
WEST ROCK CREEK RD OVERPASS			182.8	WEST ROCK CREEK RD OVERPASS	
OLD HWY 21 OVERPASS			183.2	OLD HWY 21 OVERPASS	
LONDELL RD			184.2	LONDELL RD	
OLD HWY 21			184.5	OLD HWY 21	
SR 141			185.6	SR 141	